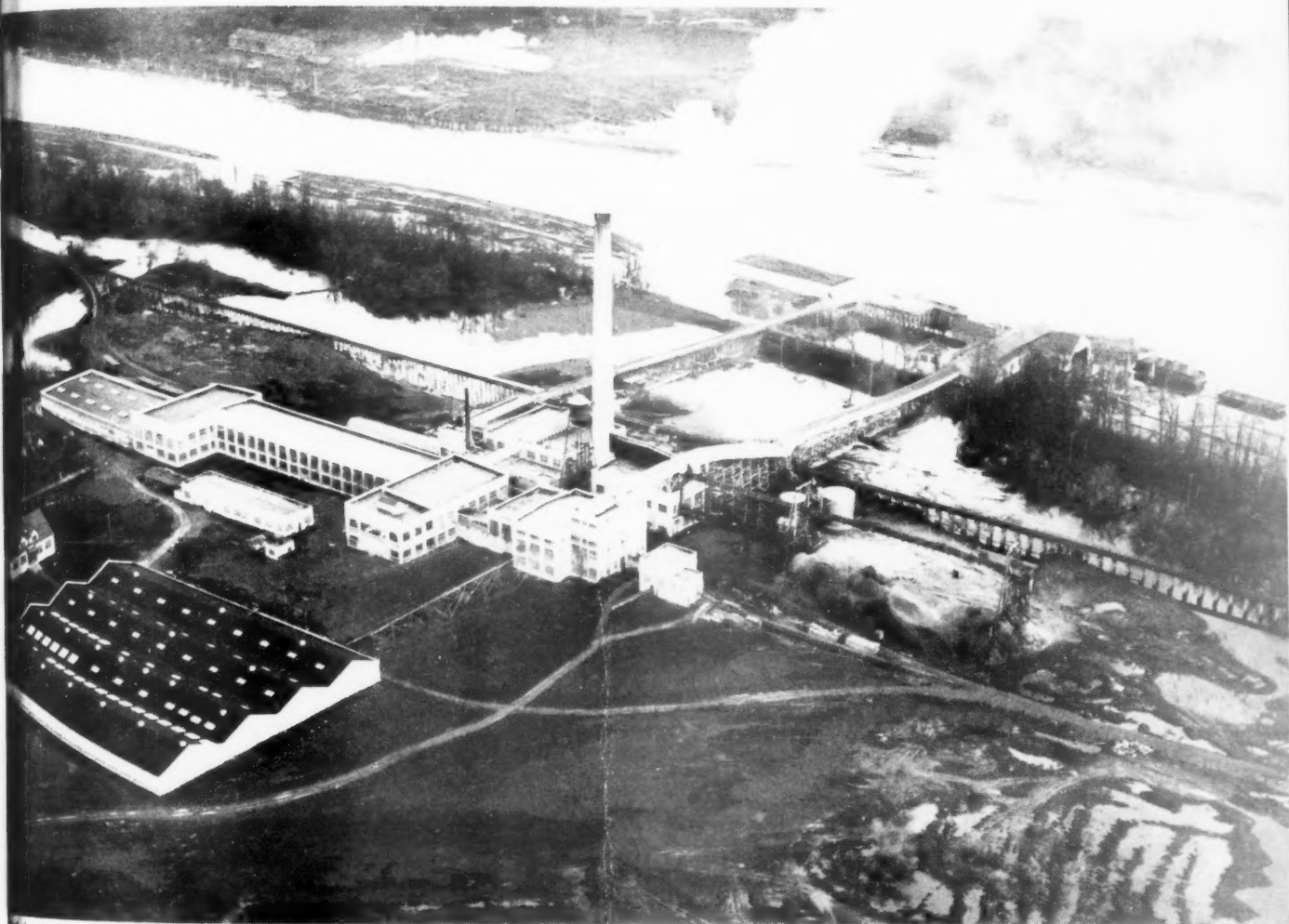


# PACIFIC PULP & PAPER INDUSTRY

Volume 4  
Number 2

FEBRUARY, 1930

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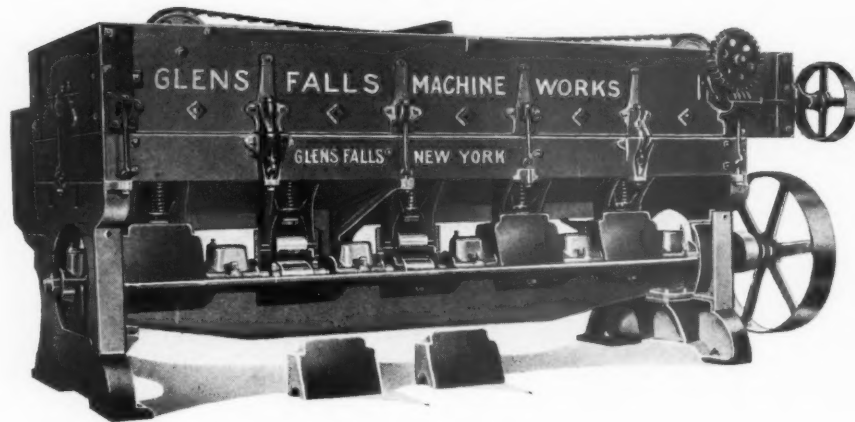
Walter Aerial Surveys, Portland

ST. HELENS, OREGON

The St. Helens Pulp & Paper Co. as it looks today.

# Glens Falls Rolling Action Flat Screen

(patents applied for)



## *The Perfect Screen*

designed for

Constant Efficiency, High Screening  
Capacity and Cleaner Stock

. . .

### Troubles Eliminated

Toe Blocks  
Pound and Clatter  
Diaphragm Distortion  
Variable Capacity

### Advantages Given

Smooth, Quiet Operation.  
Freedom From Repairs and  
Adjustments.  
Low Power Consumption.  
Constant High Capacity.

. . .

## GLENS FALLS MACHINE WORKS

GLENS FALLS, NEW YORK

Pacific Pulp & Paper Industry is published once a month—except in March, when publication is semi-monthly—at 71 Columbia St., Seattle, Wash. Subscription: U. S. and Canada, \$4.00; other countries, \$5.00. Entered as second class matter May 20, 1927, at the Postoffice at Seattle, under the Act of March 3, 1879.



## **The Modern Press Section** ***Eliminates the Bearing Evil***

**T**HE press rolls, top and bottom, and felt rolls are mounted in anti-friction bearings that save power, require no attention except occasional greasing, and make a smoother and safer-running machine, allowing greater nip pressures in most cases.

Rubber and gunmetal rolls are still used, also granite and rubber top roll and suction type bottom rolls on most papers allowing added speed, safety, and greater dryness.

Frames are stronger and stiffer for high speed, but more simple and convenient for the operator. Although the rolls are generally larger in diameter, they are lower down and presses are closer together, making it much easier for the operator to observe and attend them. Useless footboards, guides, and other equipment have been eliminated. Conveyors have been added to carry broke from doctors to front or back side of machine, automatically. Stretchers are motor driven and placed in basement, with device to regulate tension on felt. Savealls are easy to clean and need not be handled when changing felts. Improved lifting devices, combined with weight levers, for top rolls and doctor vibrators, with enclosed mechanism, are now used.

Everything has been made simple and accessible, allowing felts to be changed quickly and easily, at the same time keeping them clean. There is no time-consuming, hard manual labor. The paper-maker can now spend all his time and energy, as he should, in watching the condition of his felts and the sheet of paper being made.

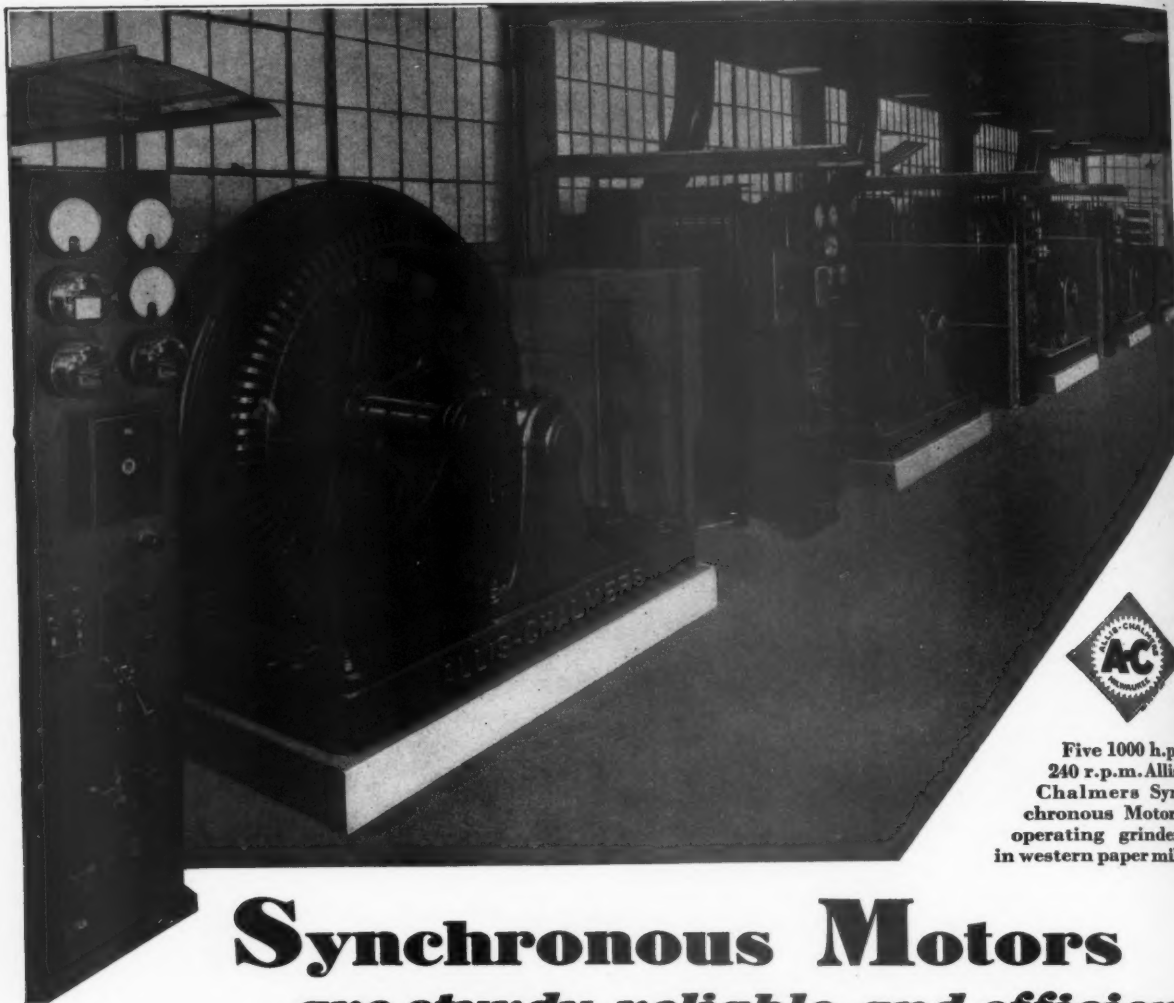
*It will pay you to get the facts. Write us.*

**The Beloit Way is the Modern Way**

**BELOIT IRON WORKS, BELOIT, WIS., U. S. A.**

# *The* **BELOIT**





Five 1000 h.p.,  
240 r.p.m. Allis-  
Chalmers Syn-  
chronous Motors,  
operating grinders  
in western paper mill.

## **Synchronous Motors** *are sturdy, reliable, and efficient*

Uniformly high efficiency at fractional loads, constant speed under varying loads, the ability to operate at unity power factor regardless of the power factor of the line, together with the power factor corrective effect that may be obtained by increasing the excitation are a few of the reasons for the increasing popularity of synchronous motors.

Allis-Chalmers synchronous motors are the result of careful investigation of design and construction. They are built to meet the requirements of a particular application and to operate with minimum disturbance to the line supplying the power.

Allis-Chalmers builds synchronous motors for any service or application, in sizes from 50 h.p. to some of the largest in operation. Special motors have been developed for installation requiring unusually high starting or pull-in torque.

Let Allis-Chalmers, builders of all types of electric motors, help solve your power problems.

# **ALLIS-CHALMERS**

**MILWAUKEE, WIS. U.S.A.**

When writing to ALLIS-CHALMERS MFG. CO. please mention PACIFIC PULP & PAPER INDUSTRY



# When 1,000 ft. of News was news!



Jan. 16, 1915

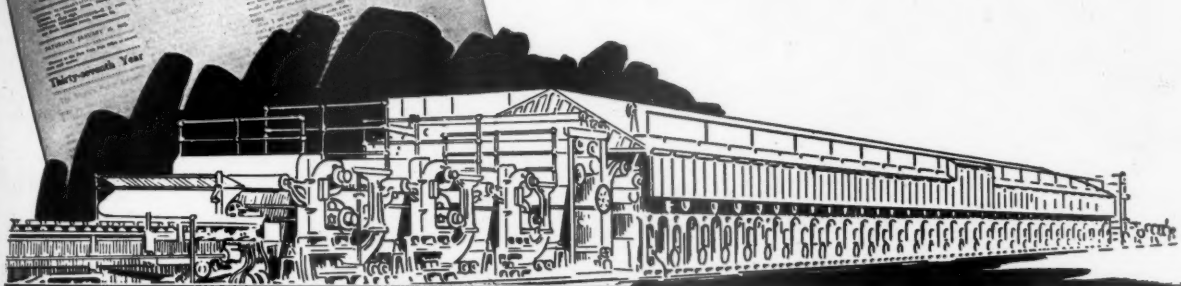
12,000 sq. ft. a minute

was the output proposed for a new Rice, Barton & Fales Machine then being tested at a mill in Maine. A sheet 12 feet wide, at the unprecedented speed of 1,000 ft. per minute!

and today

19,800 sq. ft. a minute

is the regular production on a 234-in. Rice, Barton & Fales Machine at the Port Angeles Mill of the Washington Pulp & Paper Company . . . a sheet 18 feet wide, 1,100 ft. per minute!



**RICE, BARTON & FALES**  
*Incorporated*  
**WORCESTER, MASSACHUSETTS**  
*Paper Making Machinery Since 1837*

## EXPERIENCE

Making good paper at nearly fifteen miles an hour is today's answer to the production problem . . . an answer made possible by engineering skill and modern facilities, backed by the experience of nearly one hundred years.



When writing to RICE, BARTON & FALES, INC., please mention PACIFIC PULP AND PAPER INDUSTRY

# "M & W"

## Four Drum Winder and Slitter

During the past few years improvements, which are fully covered by Patents, have been made to meet conditions of the modern high speed and up-to-date mills.

Over 1000 in Operation On All Grades of Paper and Board.



"M & W" Four Drum Winder for Book Paper 18" dia. drums 150" face. Photograph taken in mill of Champion Coated Paper Co., Hamilton, O. (This is one of their 14 "M & W" Winders.)

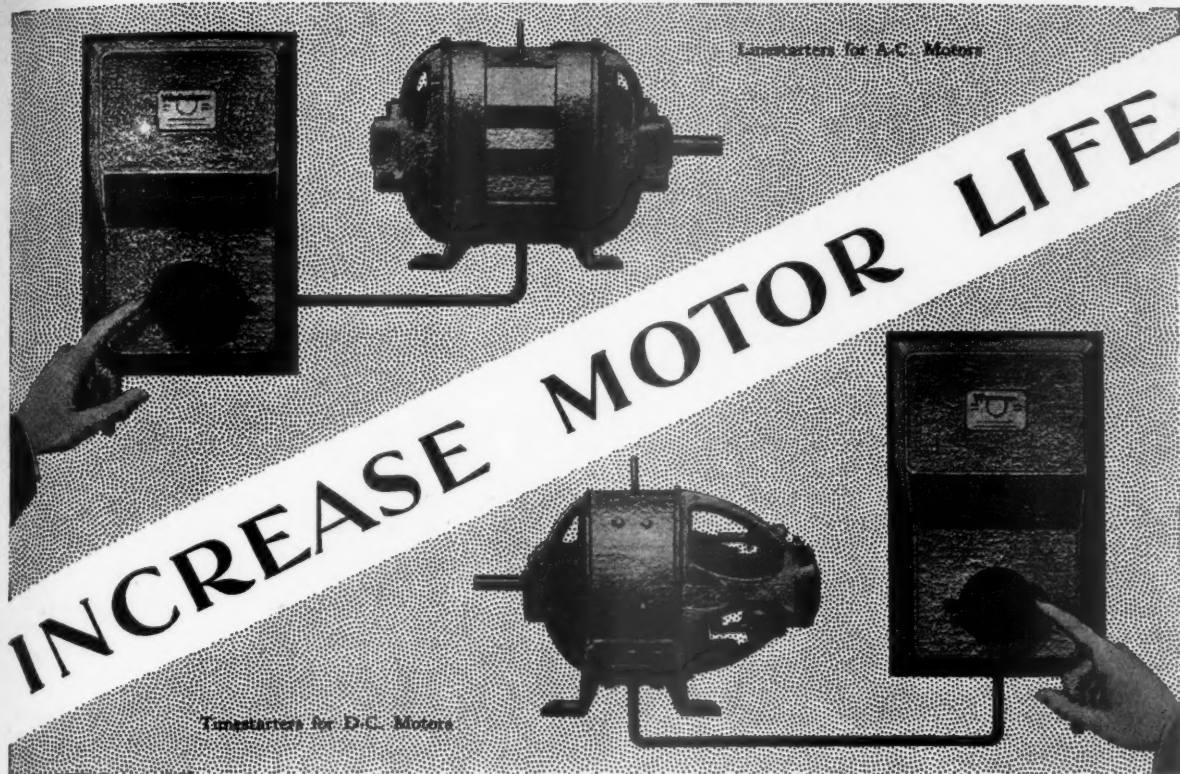
Many mills are replacing their original M. & W. four drum winders having 10-inch diameter drums with M. & W. four drum winders having drums 15 $\frac{1}{4}$ -inch, 18-inch, 20-inch and 24-inch diameters. These winders are very desirable for wide and fast running machines and large diameter rolls.

The new improved four-drum winder equipped with ball bearings throughout and drums driven independently with separate electric motors is meeting with great success, as is their new type two drum winder.

A recent valuable money-saving improvement on the M. & W. winder is the removable bottom slitter whereby a slitter blade is changed in the same manner as the top blade. Both are equipped with ball bearings.

**THE MOORE & WHITE CO.,** NORTH PHILA. STATION  
PHILADELPHIA, PA.  
P A P E R . M A C H I N E . B U I L D E R S

*When writing to THE MOORE & WHITE CO., please mention PACIFIC PULP AND PAPER INDUSTRY.*



## *with Westinghouse Starters*

**Y**OUR motors will last longer when they are adequately safeguarded against the overloads that shorten motor life.

Westinghouse starters for a-c. and d-c. motors are provided with a particularly sensitive and permanently accurate thermal overload device that affords the highest degree of motor protection.

### Additional features:

- Combined hand or automatic reset of overload device.
- Push button on starter cabinet reduces installation costs.
- Ample space in cabinet for wiring.
- Small size cabinets take little mounting room.

Thirty years' experience in building and applying control to suit the motor fully qualifies Westinghouse to design equipment that meets your requirements.

Service—prompt and efficient—by a coast-to-coast chain of well-equipped shops.



WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY  
EAST PITTSBURGH PENNSYLVANIA

SALES OFFICES AND SERVICE SHOPS IN ALL PRINCIPAL CITIES

# Westinghouse

T 30965

When writing WESTINGHOUSE ELECTRIC & MFG. CO., please mention PACIFIC PULP AND PAPER INDUSTRY





# speed reducer approved by the aristocracy of industry

If we could place here the list of plants where Cleveland Worm Gear Speed Reducers have been installed, you would ask for no greater proof of "Cleveland" performance and "Cleveland" reliability. For that list includes names known in every corner of the world . . . great industrial plants that dominate their respective fields . . . leading manufacturers whose factories are models of production efficiency.

No ordinary speed reducer could satisfy the engineers of such plants. They demand the most advanced engineering design, the best quality of materials obtainable, and manufacturing precision of the highest order.

By building to the exacting requirements of these engineers "Cleveland" has produced a speed reducer which outlasts all others, which operates entirely without risk of sudden breakdown, and which costs less to maintain.

To prospective buyers, no higher recommendation can be offered than that the list of prominent "Cleveland" users is almost a complete "BLUE BOOK OF AMERICAN INDUSTRY." Any "Cleveland" representative will gladly name for you the list of "Cleveland" users in your field.

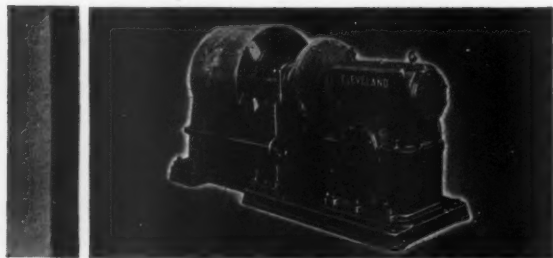


## CLEVELAND

### WORM & GEAR COMPANY

3257 East 80th Street . . . . . Cleveland, Ohio

*Cleveland Type  
RT unit con-  
nected to couch  
roll. Ratio  
4 1/2 : 1, 500  
r.p.m., 30 h.p.*



3257

**CLEVELAND WORM GEARING—THE ULTIMATE DRIVE**

*When writing to CLEVELAND GEAR & WORM CO. please mention PACIFIC PULP AND PAPER INDUSTRY*





## NO FAIR WEATHER SAILORS

HE WHO HAS BUILT A BUSINESS FROM THE NEBULOUS STAGES OF AN IDEA INTO A THRIVING, ACTIVE, GROWING THING WELL KNOWS THAT A STOUT HEART GOES INTO THE BUILDING. NO "FAIR WEATHER SAILORS" HAVE STEERED THE PULP AND PAPER INDUSTRY OF THE WEST THROUGH THE HARDSHIPS AND UNCERTAINTY OF THE PIONEER YEARS. BUT THOSE WHO HAVE CARRIED THROUGH HAVE SEEN THEIR COURAGE VINDICATED AS THE INDUSTRY HAS GROWN TO MATURITY.

TO THE FIRST PULP AND PAPER MILLS ON THE COAST, GREAT WESTERN ELECTRO-CHEMICAL COMPANY SUPPLIED CHLORINE. THE SUPPLY WAS UNFAILING, THE PRODUCT DEPENDABLE. TODAY, GREAT WESTERN, TRIED AND PROVEN WITH THE PIONEERS, REJOICES IN THE MATURITY OF THE INDUSTRY, AND CONTINUES TO SUPPLY PRODUCT AND SERVICE UNSURPASSED.



**GREAT WESTERN  
ELECTRO-CHEMICAL  
COMPANY**

**SAN FRANCISCO**

**PLANT: PITTSBURG, CALIF.**

**SEATTLE: 514 FOURTH AVENUE**

*When writing GREAT WESTERN ELECTRO-CHEMICAL Co., please mention PACIFIC PULP & PAPER INDUSTRY.*

# WASTE! WASTE! WASTE!

**WHY...** Do you take a chance with your wire and felts?

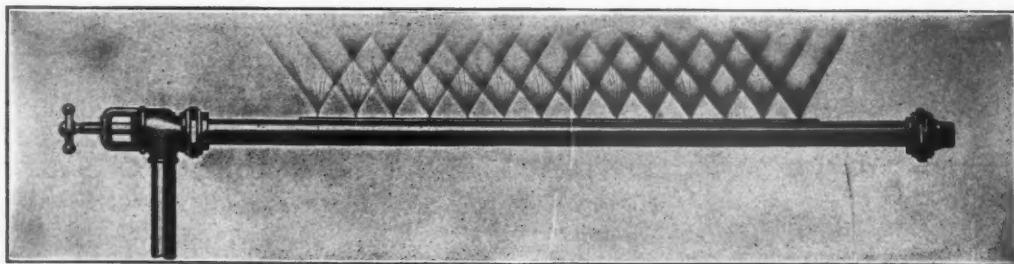
**WHY...** Do you wash the dirt onto your clothing?

**WHY...** Do you waste power pumping water for showers?

**WHY...** Do you wish the stock would not stick?

**WHY...** Do you not use the hi efficiency "RAINSTORM" shower pipe?

**BECAUSE** you are not familiar with  
**THE "RAINSTORM" SHOWER PIPE**



*The Shower Pipe which does the work with 2/3 the pressure and does it right.*

## DON'T TAKE A CHANCE!

with loose pieces—sharp projections—from dirt discharge on the wire

Get familiar with the "RAINSTORM" shower for your paper machine

MANUFACTURED BY

**THE SMITH & WINCHESTER MFG. CO.**

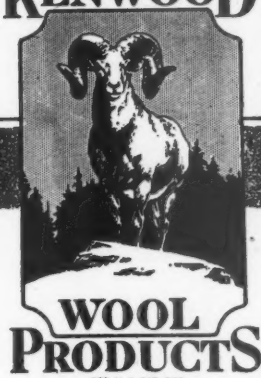
SOUTH WINDHAM, CONNECTICUT

Western Sales Agent: JAY PLATT HAMERSLAG, 655 Russ Building  
San Francisco, California

When writing to SMITH & WINCHESTER MFG. CO. please mention PACIFIC PULP AND PAPER INDUSTRY

# FELTS THAT WEAR LONGER AND RETAIN THEIR OPENNESS ARE A REAL ECONOMY

## KENWOOD



Kenwood Tanned Board Felts are the result of progressive scientific development. Their capacity for long service and their increased water removal properties are found in a basically sound design plus the added advantages of Kenwood patented tanning processes and the new method of yarn construction.

It was in Kenwood Felts that the one-sided board felt was first introduced. The Kenwood patented Tanning processes that add so materially to the life of a felt were a second fundamental Kenwood development. Now, the new method of yarn construction, which neither adds weight nor increases the size of the yarn, is added to the list of distinctly Kenwood features. Combined, they give the papermaker the ultimate in strength, openness, finish, long life—and felt economy.

## F. C. HUYCK & SONS

KENWOOD MILLS, ALBANY, N. Y.

KENWOOD MILLS LTD., ARNPRIOR, ONTARIO

# KENWOOD FELTS

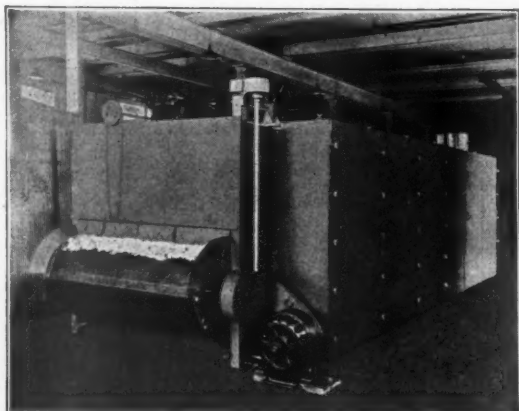
*When writing to F. C. HUYCK & SONS please mention PACIFIC PULP AND PAPER INDUSTRY*

# FIDALGO DRYING SYSTEMS

(PATENTS GRANTED AND PENDING ALL COUNTRIES)

## *Investigate Our Installations*

*For PULP DRYING*



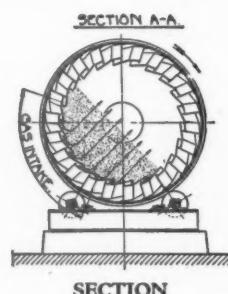
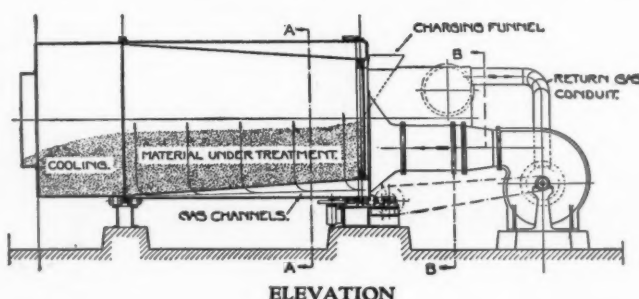
*Shredded Pulp Dried With Same  
Strength as Wet*

*For INSULATING BOARD*



*Type M Dryer—For Uniform Surface  
Board—High Speed Maximum  
Efficiency*

## *...for Bark and Chips*



## The New "PHERSON" Rotary Dryer

*Higher Efficiency—Smaller Units—Lower Costs*

# TECHNICAL ECONOMIST CORPORATION

122 East 42nd Street

NEW YORK, N. Y.

*When writing to TECHNICAL ECONOMIST CORP. please mention PACIFIC PULP AND PAPER INDUSTRY*

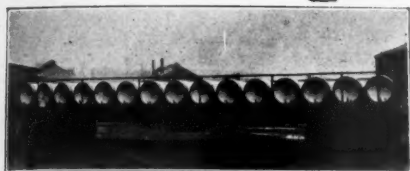




# CHLORINE

## *Liquid* CHLORINE

*to Meet Your Requirements*



LIQUID CHLORINE TANK CAR  
Multi-Unit Ton Containers



LIQUID CHLORINE TANK CAR  
16 Tons



LIQUID CHLORINE TANK CAR  
30 Tons

Ample stocks and complete tank car and cylinder equipment at both of our plants assure prompt and efficient deliveries to all sections of the country.

The advice and experience of our technical and engineering staff are at your service. We solicit your inquiries and welcome the opportunity to assist you.

## HOOKER ELECTROCHEMICAL COMPANY

**EASTERN SALES OFFICE:**

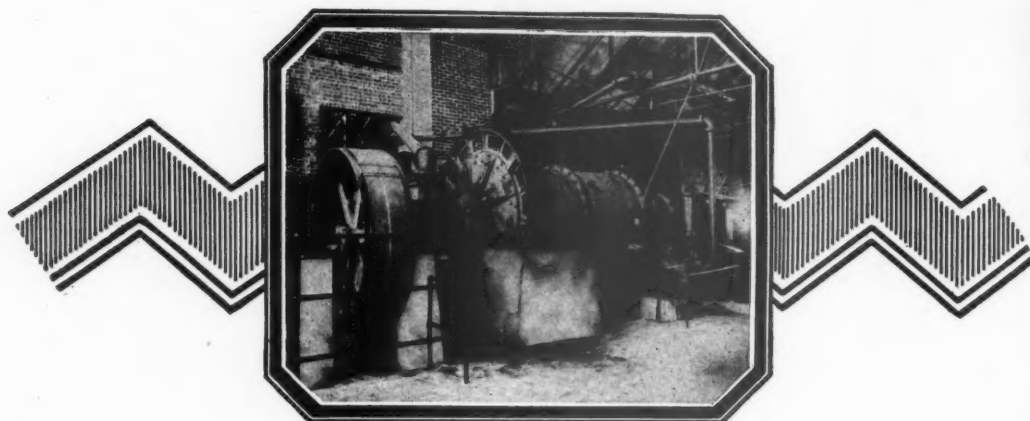
25 Pine St., New York City  
Plant, Niagara Falls, N. Y.

**WESTERN SALES OFFICE:**

Tacoma, Wash.  
Plant, Tacoma, Wash.

*When writing to HOOKER ELECTROCHEMICAL Co., please mention PACIFIC PULP AND PAPER INDUSTRY*

# *Saves 60% of Power In Beating Straw*



**T**HE Marcy Open End Rod Mill is particularly effective in working up into good paper stock knots and chaffy material, producing a stock of better appearance and greater strength. This results from the true beating action of the rods which insures longer fibers and no cutting.

Use a Marcy Rod Mill for beating, and a modern washer for washing, and do a good job in each operation, instead of washing and beating with one machine and obtaining indifferent results. The large open door of the Marcy Rod Mill gives you absolute control not obtainable in any other type of beater.

140 H. P. applied to two Marcy Rod Mills with

70 H. P. applied to one Jordan and 35 H. P. to a filter washer will produce the same tonnage of a better quality board than is now produced by 350 H. P. applied to beaters and 150 H. P. applied to Jordans. This tremendous saving in power is made possible by the open end and low pulp line which are special features of the Marcy Rod Mill.

Because of the saving in power consumption, the Marcy Rod Mill will pay for itself in a very short time and while doing so will produce a stock of better appearance and greater strength than you are now getting.

Write us for *Bulletin No. 75* and complete details and figures on beating straw with the Marcy Mill.

## *The* MINE and SMELTER SUPPLY COMPANY MARCY MILL DIVISION

*Licensee under the Marcy Rod Mill Patents*

DENVER, COLORADO  
1422-17th Street

*Manufactured in Canada by*  
**WILLIAM HAMILTON, LIMITED.**  
PETERBOROUGH, ONTARIO

NEW YORK CITY  
225 Broadway

# MASSCO

*When writing to THE MINE & SMELTER SUPPLY CO., please mention PACIFIC PULP AND PAPER INDUSTRY*

# ANOTHER YEAR OF NATIONAL SERVICE



**D**URING 1929, as in many preceding years, we have tried to give to the paper industry not only dyes perfect as continuous research and experienced manufacture can make them, but to develop an organization equipped to give the Service we advertise.

**W**E have widely distributed branches, to give prompt deliveries; a laboratory at every branch, to assist in solving the dyers' problems; a staff of trained technical men, to maintain constant contact with manufacturers and serve wherever possible.

**O**N such an organization we have built the reputation of National Service.

**A**ND 1930 will see us unceasing in our efforts to continue cordial co-operation with the paper industry and render specialized dyeing service.

## NATIONAL DYES

**National Aniline & Chemical Company, Inc.**

40 Rector Street, New York, N. Y.

CHICAGO  
PHILADELPHIA

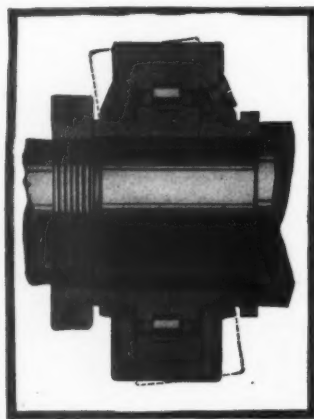
BOSTON  
PROVIDENCE  
TORONTO

CHARLOTTE  
SAN FRANCISCO

A glimpse of the lower press roll assembly on a No. 5 cylinder machine in the Manayunk (Pa.) Mill of the Container Corporation of America.



**WHERE**  
*the load is Heaviest*  
*and the duty Hardest!*



**F**OR nearly three years, without any trouble whatever, NORMA-HOFFMANN Precision Roller Bearings have carried the exceptional load of the lower press rolls on this cylinder machine.

The duty is extremely heavy. Added to the weight of the lower roll (carried entirely on the bearings) is the weight of the upper roll plus the pressure exerted by a hand-screw. But even under this tremendous burden, PRECISION Quality is demonstrating the superdependability for which it has always stood.

*Let our engineers share with you their long experience in applying Precision Bearings to paper mill problems.*

**NORMA-HOFFMANN**  
**PRECISION BEARINGS**

**NORMA-HOFFMANN BEARINGS CORPORATION STAMFORD, CONN., U.S.A.**

N-1294

*When writing to NORMA-HOFFMANN BEARING CORP., please mention PACIFIC PULP AND PAPER INDUSTRY*



Today every real achievement, and every real advance in any art, is the product not of one mind but of a number of minds.

The prospect, and degree, of success in their undertaking, depend on how completely their minds are able to work as one.

Each of the minds must be capable of following each of the others; no matter how technical, or how new, or how difficult, the matter may be.

Equipment, magnitude, location, are not all that is needed for success . . . Grasp, uptake, readiness, understanding . . . Background, experience . . . Harmony, skill in co-ordination.

**These are  
what count  
for real advancement  
in the building of  
still better paper-  
making machinery.**

**Pusey  
and  
Jones**



THE PUSEY AND JONES CORPORATION, WILMINGTON, DELAWARE, U. S. A., BUILDERS OF PAPER MAKING MACHINERY; FOR NEWS : BOOK : KRAFT : BOARD : : Working For, and in Technical Co-operation With, the Forward-Thinking Minds of the Industry : Since 1848 : The MARK, shown here, will be found on Every Casting, and on every Other Part of major Importance, in every Machine produced by This Company : : It is the Mark of Our Own Technical Standards : : A mark of Superior Quality.

When writing to PUSEY & JONES CORPORATION please mention PACIFIC PULP AND PAPER INDUSTRY



## 16 Pages of Information

### about BRISTOL'S RECORDING Psychrometers

**W**HEREVER atmospheric conditions are to be controlled, a knowledge of relative humidity is the key to securing and maintaining desired results. Bristol's Recording Psychrometers are designed to record this information automatically and continuously.

Such records can be readily filed away, and are valuable, both as a source of engineering data, and for reference in settling disputes.

Instrument Models described in this new Bristol's Catalog can be adapted to meet a great variety of installation requirements. They are easy to install, and are noted for simplicity of construction, accuracy and sensitivity of operation.

Catalog No. 2100 should be in your reference file. A copy will be sent on request to any interested person.

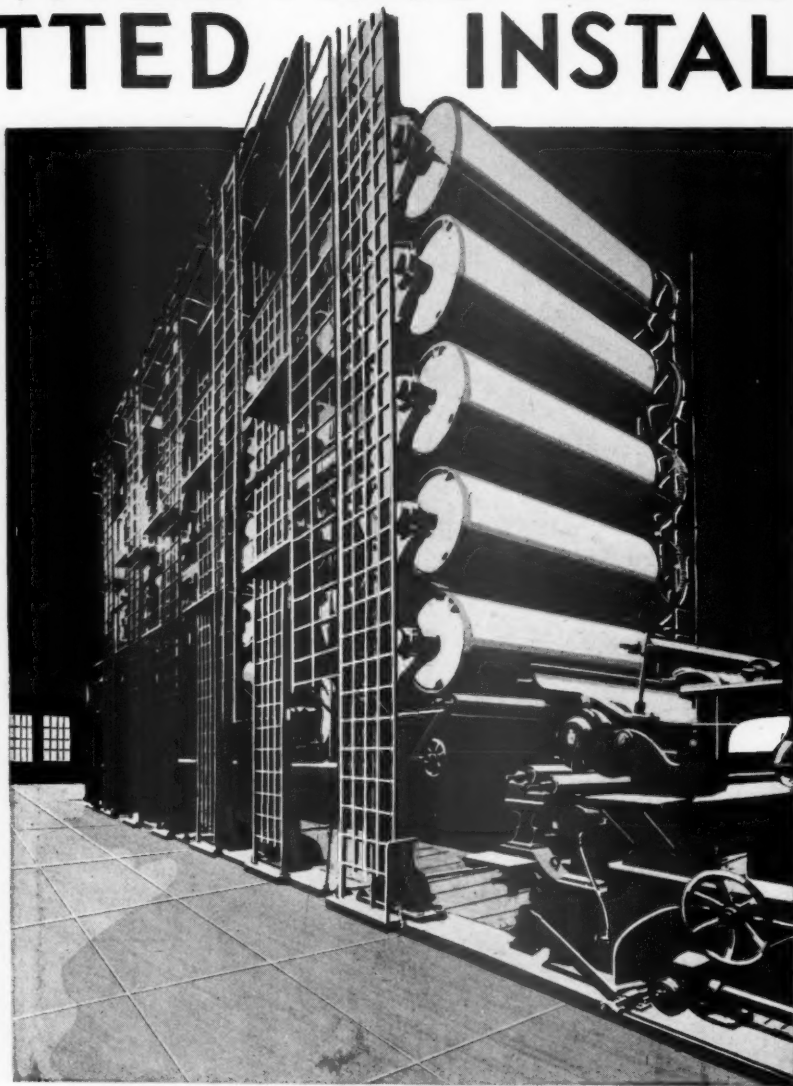
*To aid in planning installation details,  
Bristol's Engineering Service is at your  
disposal—without obligation.*

*The*  
**BRISTOL**  
Company

Waterbury,  
Conn.

When writing to THE BRISTOL COMPANY please mention PACIFIC PULP AND PAPER INDUSTRY

162  
**NO MILL HAS EVER RE-  
GRETTED INSTALLING**



**BLACK-CLAWSON  
VERTICAL  
DRYERS**

**The Black-Clawson Co., Hamilton, Ohio**  
**Export Office—15 Park Row, New York City**

# WHY MILLS PREFER MIAMI

The Miami No. 6 Jordan embodies the soundness of design and construction one naturally expects of the world's largest builders of paper mill machinery. Every feature is backed by experience and thoroughly tested in practice.

Check these points of Miami design with what you know about other jordan and be your own judge.

Side inlet.  
Machined to jigs.  
One piece body construction.  
Projected bearing area 483 sq. in.  
Bandless plugs at no additional cost.  
Plug statically and dynamically balanced.  
Thrust screw applied directly to center of shaft.  
Plugs can be removed without disturbing bearings.  
Steel forged nose at small end of plug, preventing broken lugs.  
Center to center distance of bearings with new fillings, 7' 4½"

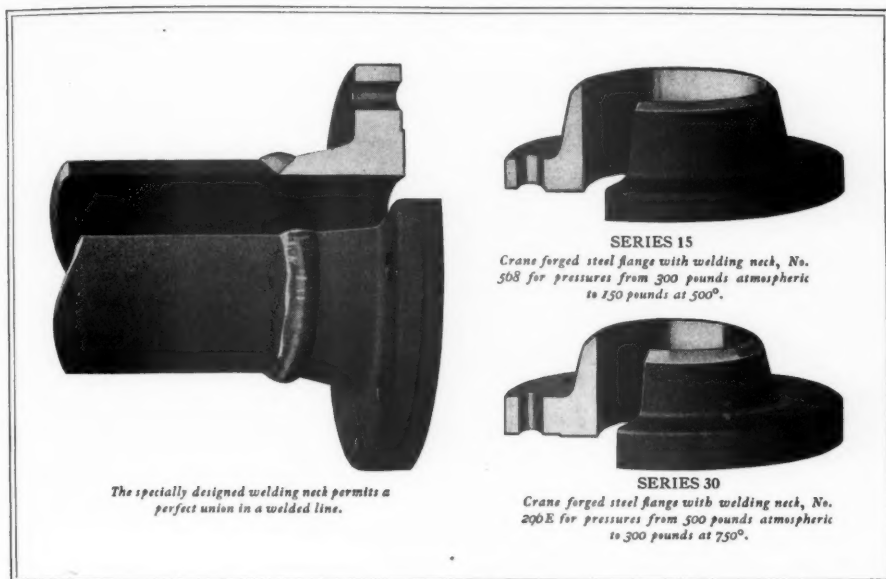
Try this test. Put a vibrograph on a Miami. Note the absence of vibration—then make the same test on any other jordan.



# Shartle



1855 • SEVENTY-FIFTH ANNIVERSARY • 1930



## For economy—for strength steel flanges with welding necks

The last few years have wrought many improvements in welding. Improvements in technique which make it more practical . . . in processes which make it as strong or stronger than the metal itself.

Crane Co. has followed these developments carefully, and has applied them to piping equipment, by manufacturing a complete line of forged steel flanges with welding necks.

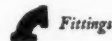
These flanges provide for joints that are absolutely leak-proof and that offer

high safety factors. Equally important, they institute genuine economies. Often they do away with the need for special valves and fittings; as on lines equipped with them regular stock valves can be used in absolute assurance of efficiency.

These welding flanges are made in sizes from 2 inches up, for steam working pressures as high as 300 pounds. Full information concerning them and the economies they will bring you can be had by writing Crane Co.



# CRANE



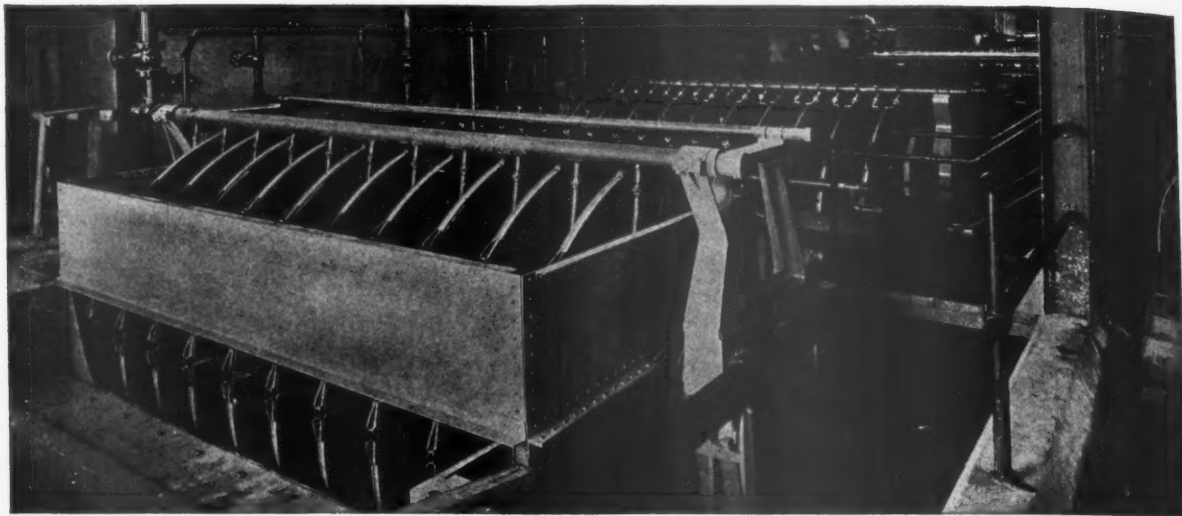
CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO

NEW YORK OFFICES: 23 WEST 44TH STREET

Branches and Sales Offices in One Hundred and Ninety Cities

When writing to CRANE CO., please mention PACIFIC PULP AND PAPER INDUSTRY.

## What the Fall Months...



## Have Brought in the Way of Shipments of Oliver United Equipment

**F**ROM September 1st to December 31st, shipments to paper mills in the United States, Canada and other countries involved the following equipment:

- 18 Deckers
- 6 Save-Alls
- 5 H. D. Thickeners
- 13 Bleach Washers
- 3 Kraft Washers
- 4 Lime Mud Filters
- 1 Board Machine

These shipments step up the total installation of Oliver United equipment to around 600 units.

This consistently climbing curve in the sales chart clearly indicates the growing appreciation of the operating and investment value of Oliver United equipment for paper mills.

## OLIVER UNITED FILTERS INC.



JOHANNESBURG E. L. Bateman  
TOKYO American Trading Co., Inc.  
MELBOURNE Fyvie and Stewart  
HONOLULU W. A. Ramsay Co.  
MANILA The Edward J. Nell Co.

Factories:  
Oakland, Calif., Hazleton, Penna.,  
Peterboro, England  
Cable Address: OLIUNIFILT

TIMMINS, ONTARIO B. D. Kelly  
HALLE, GERMANY Wilhelm Lill  
SCHEVENINGEN, HOLLAND  
and SOERABAIA, JAVA Van Lelyveld and Co.  
RECIFE, BRAZIL Ayres and Son

SAN FRANCISCO	NEW YORK	CHICAGO	LONDON	PARIS
Federal Reserve Bank Building	33 W. 42nd St.	565 Washington Blvd.	150 Southampton Row	T. L. Genter, Concessionaire 63 Ave. des Champs Elysées

# LINK-BELT Equipment At St. Helens Pulp and Paper Co.



CENTER: Link-Belt Anti-Friction Belt Conveyors distributing chips to the digesters.  
LEFT: Link-Belt >Rivetless< Chain Conveyors handling hogged fuel.  
RIGHT: Link-Belt "H" Class Refuse Chain Conveyor carrying slabs to chippers.

In this mill are Link-Belt Anti-Friction Belt Conveyors; >Rivetless< Chain Conveyors; "H" Class Chain Conveyors; Gravity-Discharge Bucket Elevators; Meeseco Short-Center Belt Drives; miscellaneous agitator equipment, and conveyors for lime and sulphur; Speed Reducers; and a Link-Belt "CleanWater" Intake Screen.

Link-Belt builds complete in its own plants every approved type of elevator, conveyor and power transmission unit and is therefore in a position to offer the best for the particular service.

Our experienced engineers will be glad to help solve your conveying and power transmission problems.

## Address Our Nearest Office

### LINK-BELT COMPANY

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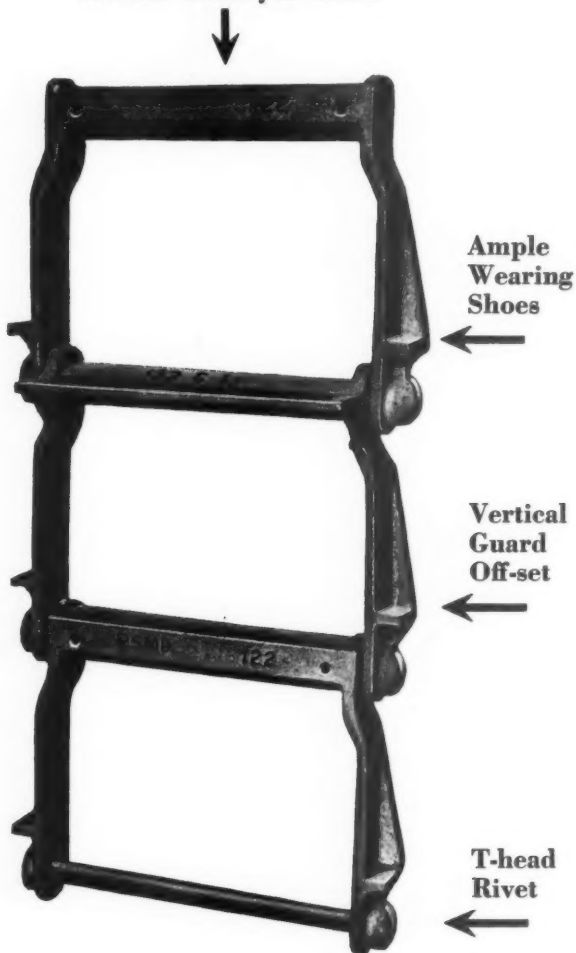
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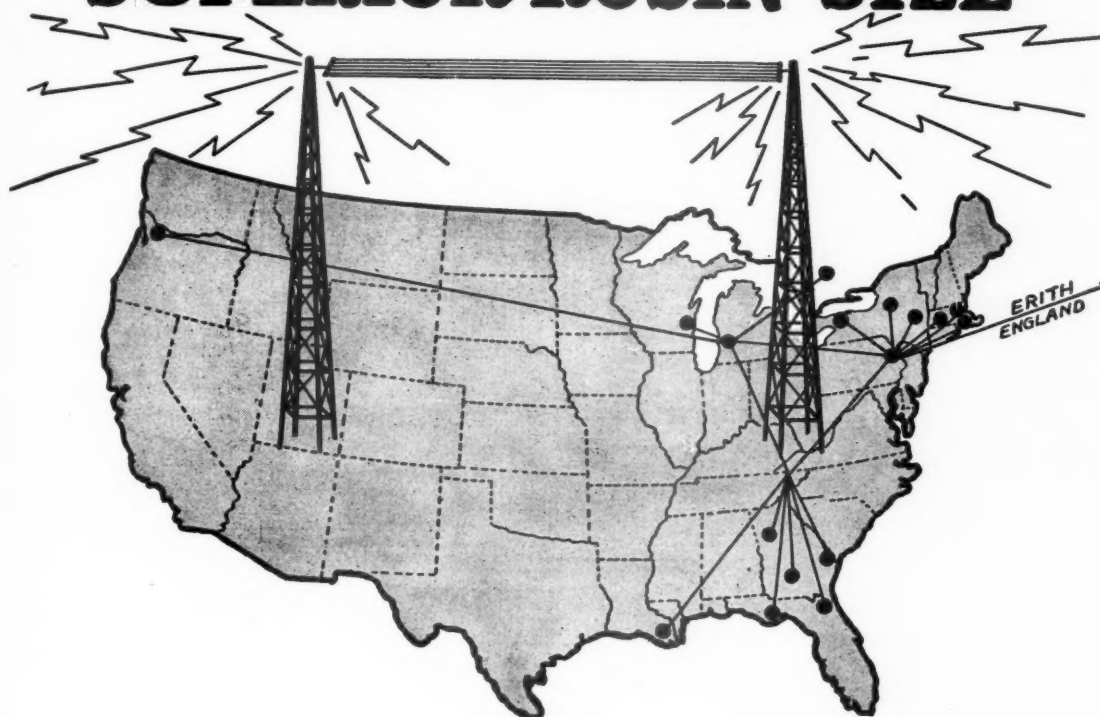
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FEBRUARY, 1930

VOLUME IV

# PACIFIC PULP and PAPER INDUSTRY

NUMBER 2

MILLER FREEMAN, President  
L. K. SMITH, Manager



LLOYD E. THORPE, Editor  
HARLAN SCOTT, Advertising Manager

## In This Issue -

★ ★

### The Story of St. Helens Kraft

A unique feature about a well-known mill..... 25

### How St. Helens Controls Mill Operations

"Figures for profit, not just for accumulation of data"..... 33

### Townsite Management at Ocean Falls

An important department with roots in the balance sheet..... 34

### Technical Control—

What's in it for the chemist?..... 36  
By CHARLES A. NEWHALL

### New Pulp Mill for Grays Harbor

Blagen interests intimate some action..... 38

### Plans Paper Mill for Eugene

Oregon capital planning new enterprise..... 41

Cameron Talks on Alaska..... 39      Weyerhaeuser Action..... 47

Paper Goes East..... 42      T.A.P.P.I. .... 51

Thirteen Months System..... 42      Boards and Boxes..... 57

Trade Talk ..... 45      Safety First ..... 53

## EDITORIAL

¶ Two pieces of news this month are of significant interest to the industry as a whole. The Hammermill Paper Co. launches a national advertising campaign for a West-Coast-made paper. The Crown Zellerbach Corporation does the same thing for another grade. These two events are very definite milestones in the trend, "The Paper Industry Is Moving West."

¶ This journal has long contended that economic forces, having principally to do with the supply of raw materials, were causing a definite migration of the industry to the timbered regions of the Pacific Coast. It reasserts now that PULP will lead the westward march, but that PAPER will follow.

¶ It might be a good idea for the pulp manufacturers of the Pacific Coast to get together in understanding. They have a strong bond of interest between them. Their competition is not their neighbor Pacific mill, but the mills of foreign lands, which sell in the same market. Poor grade or cut-price pulp from the West puts a black mark on all Pacific Coast pulp and does nobody any good.

¶ Eastern manufacturers interested in the Pacific Coast field would do well to choose carefully their sources of information on timber supply and other factors, making sure these sources have no reason to offer biased opinion.

**THE PACIFIC COAST JOURNAL FOR PRODUCERS, CONVERTERS,  
AND DISTRIBUTORS OF PULP, PAPER, AND BOARD.**

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A story about

# St. Helens Kraft

## The mill and the organization

The illustrations used  
are 100-line halftones.



HE scream of saws tearing open giants of the Pacific Northwest's forests is a form of industrial music long familiar to residents of St. Helens, Oregon. The men of this thriving little community on the lower Columbia have for many years been trooping down to the lumber mills. Mighty rafts of logs, sliding slowly upstream on the broad bosom of the Columbia behind puffing little steamers, rafts bound for the many sawmills dotting the banks of the Columbia and the Willamette, these have long been a familiar sight. So, too, have been the bulky, black ocean freighters slipping down to sea with deck loads of lumber.

Logs and lumber have long been familiar sights. Pulp and paper? Well, that's another subject. Some of those rafts, bound upstream, had been headed for paper mills at the falls on the Willamette or elsewhere, and hidden beneath some of those deck loads have been rolls of paper going down to California and other markets, but otherwise St. Helens folks knew nothing about pulp and paper. That was in years gone by, but not more years than you can count on the fingers of one hand.

As a matter of fact, in this little city 30 miles down the Columbia from Portland there was nothing more tangible than whisperings of pulp and paper mills-to-be prior to the dawn of 1926. Then, first thing in January, with contracts signed, some new faces showed themselves in St. Helens. Contractors began grubbing at a rock-bottomed site a

mile south of town and buildings began to take shape. A dock arose on pilings sunk in the river bank and ocean freighters began discharging supplies and equipment at this deepwater dock. Trainloads of freight began rolling in on the spur of the S. P. & S. Ry. which cut directly through the site. The talked of pulp and paper mill was going to be a reality.

On Christmas eve of the year 1926, St. Helens had a celebration to commemorate the birth of a new

IRVING T. RAU

Secretary and  
Treasurer

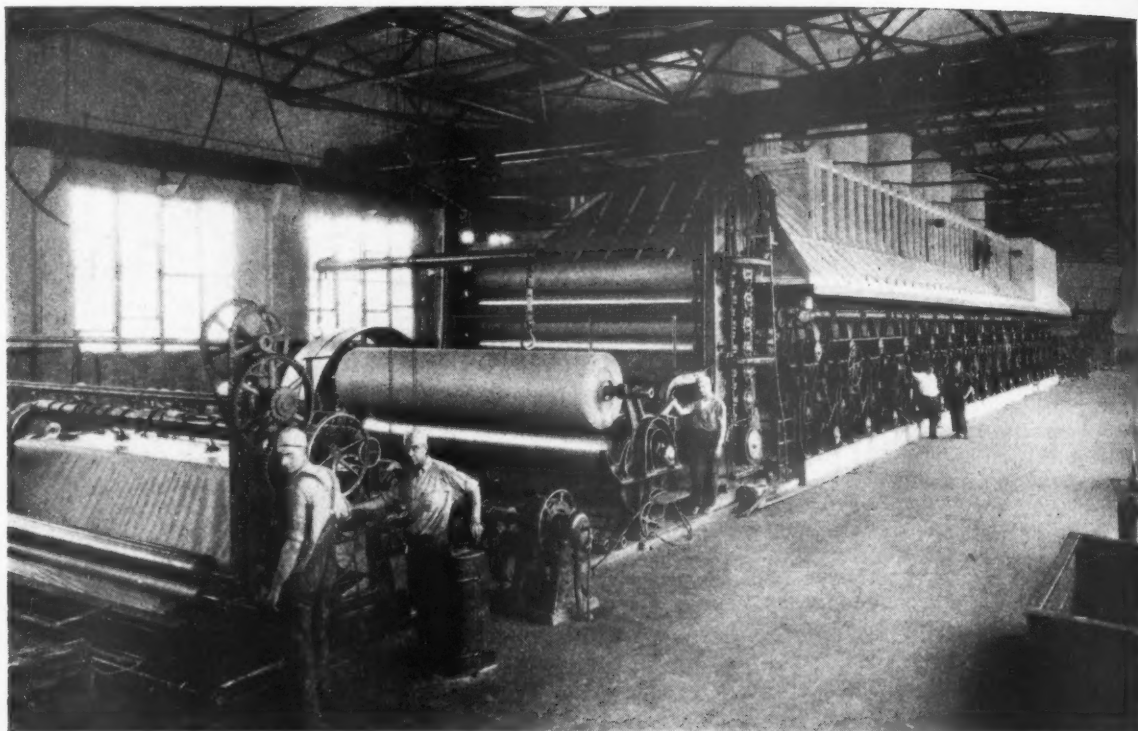


industrial era, of the creation of new payrolls founded on the forest resources of the Pacific Northwest. The executive and management personnel of the St. Helens Pulp & Paper Co. were on hand to witness initial production in the company's new mill, a 60-ton kraft pulp and paper mill, the first mill on the Pacific Coast to go in exclusively for the manufacture of kraft pulp and paper. St. Helens' citizens tuned their ears to a new industrial hum.

The St. Helens Pulp & Paper Co. at the turn of the new year, 1930, entered upon its fourth year of production. Its high grade kraft papers, sold exclusively through the broad distributing facilities of the Graham Paper Co., have won a name in quality markets. The company's financial statement reflects sound success. In its three years of life, it has purchased the plant and business of the California Bag and Paper Co. and moved to its mill site a complete paper bag factory. It has also induced the Jaite Co., of Jaite, Ohio, to establish a Pacific Coast branch in a new building adjoining the paper mill, for the manufacture of multi-wall heavy duty bags from St. Helens kraft.



Affairs of the Company Are Now Directed in a New Administration Building Which Is Fondly Termed the "County Courthouse".



In the Three Years This Beloit Machine Has Been in Operation, It Has Produced at More Than Rated Capacity

Let us inquire into the manner and means of manufacturing at St. Helens. The St. Helens mill may be divided into several units for convenience's sake. Down on the river bank is the company's deep sea dock on which is built a cut-up plant to prepare wood for the pulp mill. This dock also accommodates a warehouse to house shipments and incoming raw materials moving via water. The wood room connects by means of a long conveyor shed with the steam plant and the pulp mill. The main mill buildings are set in a compact group and include a steam plant, chemical recovery room, pulp mill, beater room, machine room and finishing room. There is also a small supplementary wood room adjoining the pulp mill for chipping mill waste. These units are those originally built in 1926.

#### *Recent Additions and Expansion*

Later buildings include a new daylight paper bag factory, a unit adjoining the paper mill finishing room for the Jaite Co., extensions to the beater and chemical recovery rooms, and a modern administration building.

Logs of Western Hemlock arriving at the cut-up plant on the dock are hoisted from the river and cut into two-foot lengths with two Simonds circular saws mounted on swinging arms. These blocks are then up-ended and split with a vertical Sumner double splitter, steam driven.

The split pieces ride a Link-Belt chain conveyor line past a battery of six Smith & Valley Iron Works barkers, the cleaned wood going through a Rice, Barton & Fales chipper. Rejects from the screens go through a rechipper.

Running from the wood room up an enclosed incline are two long, endless, Link-Belt rubber con-

veyor belts. One of these carries the accepted chips direct to chip storage over the digester house. The other belt carries screen sawdust and hogged fuel, which comes from Columbia River sawmills and is loaded from river barges by means of a grab bucket.

The hogged fuel is delivered either directly to the boiler house or to outdoor hogged fuel storage. This storage pile is also served by a rail spur. In the steam plant the battery of four 500 h.p. boilers is fired by the Dutch oven method and serves to generate steam for all process requirements of the pulp and paper mill and also to develop the mill's electrical requirements through a 1500 K.W. General Electric turbo-generator, installed in another room of the boiler house. The boilers are also equipped to burn oil.

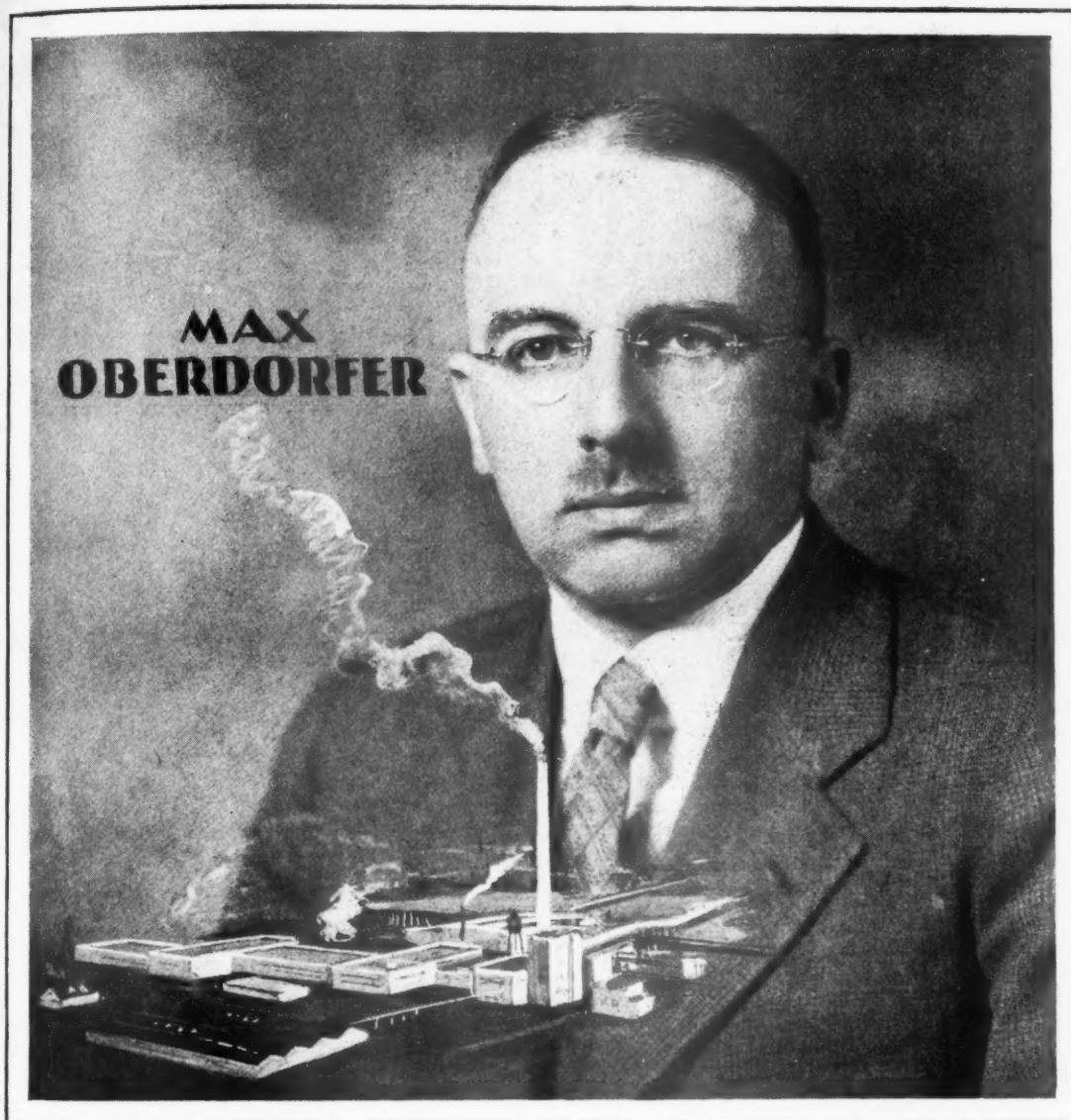
The 300-foot stack which stands between the boiler house and the recovery room is more than just a good draft inducer. It is an advertisement for the St. Helens Pulp & Paper Co. visible for many miles and from a vantage point on the Columbia Highway on clear days the stack may be observed directly against the snow-capped peak of Mount St. Helens.

#### *Processes Involved in Making Kraft*

The wood chips from the river-front chipping plant are supplemented with a supply from a smaller chipping plant located immediately adjacent to the digester house, in which Douglas fir mill waste is converted to pulp chips, about 35% Douglas fir being used in St. Helens papers.

The digester installation consists of three welded units of the rotary type. These are of 3 tons capacity per cook and during cooking rotate slowly at about 1/5 revolution per minute. A small electric





Some twenty-five years ago an earnest and industrious young lad with a bent for chemistry and engineering walked down the steps of a German university and into the business world. In the course of his scholastic period he had chosen the field of pulp and paper manufacturing as one to his liking, and with the characteristic thoroughness of the Teuton had sought to explore his chosen realm to its furthest corners.

For two years young Max Oberdorfer added practical experience to his fund of knowledge at the Upper Bavarian Sulphite and Paper Mills. Then came an urge to seek wider opportunities. He came to America, where he made a first connection with the Central Paper Co. of Muskegon, Michigan.

Mr. Oberdorfer remained with the Muskegon mill for ten years, many of which were spent in the capacity of manager. Next came an opportunity to associate with the Filer Fibre Co. of Manistec, Michigan, and there followed a ten-year period there as manager.

About this time the idea of a new paper mill was taking root in the minds of a number of men in and about St. Helens, Oregon. The original idea went thru the throes of early planning. If it could be told, the recounting of these early days when the St. Helens Pulp & Paper Co. was being brought forth into realization would make an interesting story.

But that is all history now and it is sufficient to say that when the St. Helens mill was approaching the reality a quiet-voiced, pleasant man made several trips back and forth between Michigan and St. Helens on the Columbia River.

The new company sought the man for the management. Negotiations finished, work began in earnest at St. Helens. General Manager Max Oberdorfer appeared on the scene, the principal figure in the design and construction of the new mill of the St. Helens Pulp & Paper Co., and the man who turned the wheels of the mill over for the first time as 1926 came to a close.

Since then the hum of industry has been ceaseless at St. Helens, and Max Oberdorfer has continued without pause to direct the company's production. Some months ago when W. P. Hawley, Sr., first president of the St. Helens mill, and his son, Willard, Jr., retired from the paper business, General Manager Oberdorfer was voted the additional title and responsibilities of President.

Max Oberdorfer, today President and General Manager, believes in early and thoro training. His own apprenticeship in school and mill provided a foundation upon which to build an enviable reputation as a practical paper maker. This quality, coupled with a ready grasp of management, has made him one of the most competent of paper mill executives.



**RALPH REID**  
Head Chemist



**G. E. EMIGH**  
General Superintendent



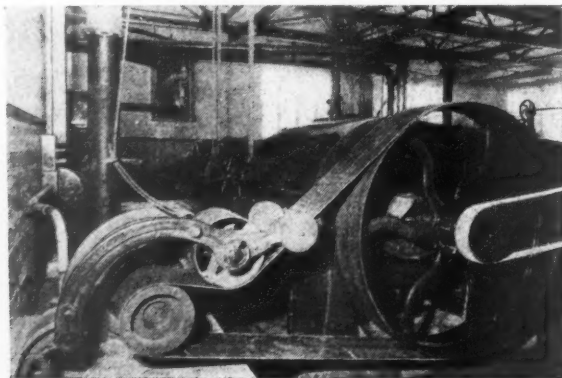
**L. B. BAKER**  
Pulp Mill Superintendent

motor operating through large gears effects the rotation.

With the cook completed, the digester is stopped with the blow valve at the bottom and a connection is made to blow the pulp into one of the 12 diffuser tanks. These diffusers are installed with their discharge doors located immediately over gratings in the floor above stock chests. Stock is flushed from the tanks by means of a manually operated water hose. The diffuser installation is in groups of four.

After being discharged from the diffusers, the raw stock is lifted from the chests by means of a centrifugal pump to the third level where it is passed through two flat shaker knot screens, a bank of three centrifugal screens and then to two Glens Falls pulp thickeners, which discharges into a pulp storage chest, which in turn is passed to beaters as 3% stock. A wet machine is provided in the screen room for making pulp laps if necessary.

The beaters are installed on the second, or machine, floor. There were 12 J. H. Horne & Sons Co. beaters in the original installation, but four additional units have recently been installed in an enlargement of the beater room. Each beater is driven by its own General Electric motor through Lenix drives. Size and color tanks are provided on each beater. Further refining of the stock is accomplished through three Horne jordan, each of which is directly connected to a 175 h.p. General Electric motor.



Lenix Drives Are Used on the Beaters

Adequate rectangular chests of concrete are built into the Beater and machine rooms and Beloit pumps are used to handle the stock through the circuit.

Most of the machine room originated in the shops of the Beloit Iron Works. After final refining through Bird screens the stock flows to a Beloit removable type fourdrinier with a wire 168 inches wide and 80 feet long. Formed into a web and passing across the suction boxes which are served by Nash vacuum pumps, the sheet passes over Beloit cylinder dryers to a Beloit Calendar. A Beloit winder completes the line. The machine operates at speeds up to 800 feet per minute, and, while the mill is rated at 60 tons per day, as high as 80 tons of paper in 24 hours has been produced.

#### *Rope Drive Unusual in This Country*

The management is partial to the rope drive, common to European mills, but perhaps less common on this continent. Below the machine room operating floor is to be found a 360 h.p. variable Terry steam turbine, the main driving unit for the machine. The turbine operates under a head of 175 lbs. of steam with 10 lbs. back pressure and turns over at the rate of 2970 r.p.m. It delivers its power to the rope drive through a Terry reduction gear unit.

The machine has two felt dryers of the ordinary cylinder type installed beneath the main dryers, and these have recently been supplemented by the addition of five Buffalo Forge Co. high pressure Breezo-Fin heating units as auxiliaries, a comparatively new innovation.

Other equipment auxiliary to the machine which is found on the lower machine room level includes a 250 h.p. Terry constant speed steam turbine driving three Nash vacuum pumps, a 125-ton Beloit triplex pump—recently installed to replace an older unit—and one Lawrence white water circulating pump. A 10-inch Shand white water circulating pump has also been recently installed. Also on this floor are a roll grinder and a Voith shredder—a rather unique installation—to take care of trim and broke.

An Oliver white water save-all, installed in the machine room basement, has a retention of 95% to 98%. Some make-up stock is run from beater chest to Oliver save-all. From the Oliver, stock is discharged at suction end of beater stuff pump.



The Original Beater Room Installation Here Shown Was Expanded During 1929

A commodious finishing room completes the paper mill proper. Equipment here includes a 164-inch Moore & White cutter and layboy, an 88-inch ream cutter, a 54-inch ream cutter and, more recently installed, an 80-inch Horne high speed cutter with layboy.

The chemical recovery room is housed in a separate building lying in the angle formed by the power house and the machine room. This department is connected with the dock by a trucking platform and is immediately adjacent to the rail spur to facilitate receiving of raw chemicals and other supplies. Principal equipment in this department includes a battery of three Zarembo evaporator effects, four smelting furnaces, six white liquor causticizing tanks and one Vulcan rotary kiln for recovering lime.

Recently there has been added a third recovery unit consisting of a rotary disc evaporator and two additional furnaces. A Dorr continuous causticizing unit has also been added recently. It consists of a continuous lime slaker, classifier, agitators, clarifiers, internal drum lime sludge filters and a rotary lime kiln.

As for the buildings of the St. Helens mill, these, with the exception of the two wood rooms, are of permanent construction, making use of concrete, steel, brick and tile. The machine room is so designed that the addition of a second machine will be an easy matter.

#### *Transportation is Made Easy*

The rail spur bisects the mill property. The pulp mill, machine and finishing rooms are on one side, the steam plant and recovery room on the other side. With this arrangement it is possible to spot cars for delivery of raw material to any department of the

mill or at the finishing room for loading outgoing finished product.

In the past few months the company has abandoned the temporary office quarters it occupied in a small frame building and has moved into a commodious administrative building which the management fondly nicknames the "county courthouse".

#### *Three Years' Development*

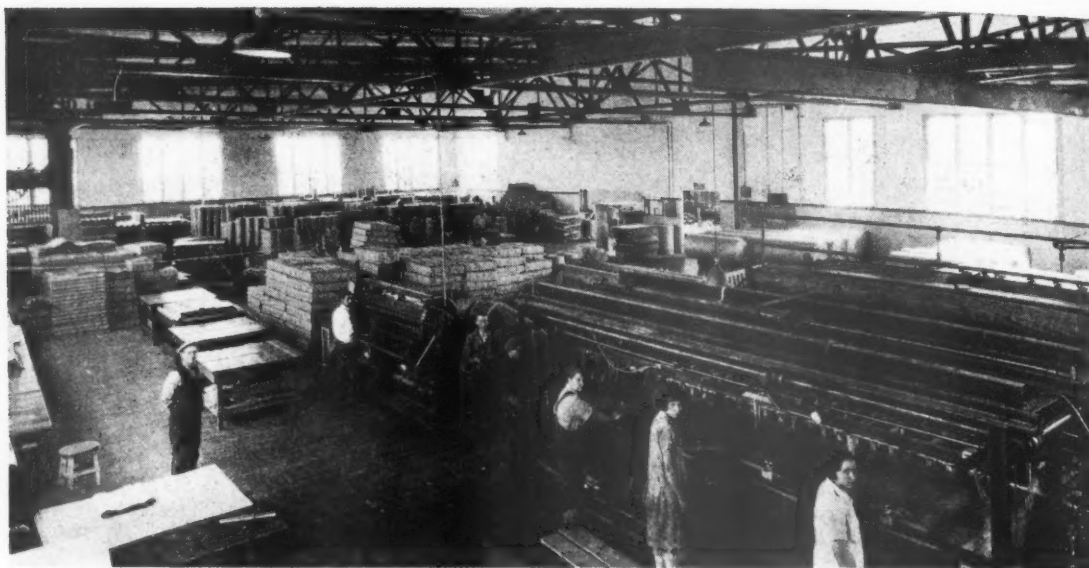
Three years ago the St. Helens Pulp & Paper Co. turned its first wheel, the first exclusive kraft mill on the Pacific Coast. Today it is an institution, converting Pacific Coast wood into a new and high grade product, furnishing employment to several hundred men and women, and representing a going concern with a balance sheet showing assets exceeding \$3,600,000.

In manufacturing, the St. Helens Pulp & Paper Co. has from the start aimed at the production of strong, high grade, light colored kraft papers. To achieve this end, it has kept a close finger on production to maintain uniform results and it has at the same time paid attention to those little economies which reflect favorably in the balance sheet.

The St. Helens Pulp & Paper Co. in the beginning was built around the Hawleys, W. P. Sr., and Willard Jr., president and vice-president of the Hawley Pulp & Paper Co. of Oregon City. Some months ago these men retired and an election at that time gave General Manager Max Oberdorfer the additional title of president.

Other officers of the company are Robert H. Ellis, vice-president; Irving T. Rau, secretary and treasurer. Directors are H. F. McCormick, chairman, Max Oberdorfer, Robert H. Ellis, E. S. Collins, Dr. J. A. Reuter, Harry T. Nicolai, Phil Metschan, C. G. Blagen and Thomas Autzen.





This View of the Finishing Room Also Gives a Good Idea of the High Type of Building Construction at St. Helens

**B**ACK in 1908 Irving T. Rau applied for and got a job as a helper on the winder of No. 6 machine in the West Linn, Oregon, mill of what was then the Willamette Pulp & Paper Co. For its day No. 6 was a fast machine, operating at the "unheard of" speed of some 500 feet per minute.

His experience in the production end of the mill lasted about two years and is today regarded by Mr. Rau as an invaluable part of his training.

He then got a chance to get into the office end of the mill and worked, among other jobs, with J. H. Walker—who is still with the Crown Willamette Paper Co.—and got an insight into the wood production part of the game.

There followed a spell of illness in which time he lost his job and later went to work across the river for the Hawley Pulp & Paper Co., again out in the mill. But he was back in the office very quickly and beginning as a stenographer, he put in 16 years of service with that organization until the St. Helens Pulp & Paper Co. drew him when it broke ground for its new mill in 1926.

He today holds the title of secretary and treasurer. Born and raised in Wisconsin, with some apprenticeship in the lumber industry of that state, he came to the Pacific Coast when 18 years old and has been here, and in the paper business, since that time.

\* \* \*

**W**HEN G. E. Emigh first trooped down to a paper mill he was just twelve years old. That was in 1898. He got what he thought were big wages, ninety cents for 11 and 13 hour shifts. He went to work in the York Haven Paper Co. at York Haven, Pa., where his father, E. E. Emigh, was superintendent. From that first job as screen boy he worked up through different jobs in the mill to be backtender.

Then the elder Emigh and son got a chance to go to Nekoosa, Wisc., where the Nekoosa-Edwards Paper Co. was putting into operation a paper ma-

chine which had been shown at the World's Fair in Chicago. It was a great machine in its day, with a wire 112 inches wide and running 500 feet per minute on news print. The machine operated direct on waterpower. The father went as superintendent of the mill and G. E. Emigh was backtender.

After some two years at Nekoosa father and son went to Orange, Texas, to operate the first sulphate mill in the South for the Yellow Pine Paper Co. At Orange Mr. Emigh first had charge of a machine. Then followed a long period of service with the Cherry River Paper Co. at Richwood, Virginia, where, after running a machine for a year Mr. Emigh moved up to be boss machine tender. In the meantime Mr. Emigh found that his early initiation into the world of work had interfered with some necessary schooling so he tackled some correspondence courses in mathematics and other subjects and brought himself up in those subjects which had been denied in years previous.

In 1915 news print began to soar and with prices at \$175 a ton the Maine Pulp & Paper Co. sent him to Skowhagen, Maine, where he was commissioned to revamp an old cylinder machine into a fourdrinier and refit a groundwood mill for news production. He then moved into still more authority by going to Rumford Falls, Maine, for the International Paper Co. to be day superintendent in a 9-machine mill making news, kraft, butchers' manila, water finished fibre and other papers.

Then following a span of service in speeding up production in the 4-machine mill of International Paper at Wilder, Vermont, he was made a traveling superintendent with all the International mills under his direction. Constant traveling did not appeal to him and when a chance came to go with Mr. Oberdorfer at Manistee, Michigan, he took it and not long thereafter came out to St. Helens during the construction of the St. Helens mill to fill the position of general superintendent which he now holds. Needless to say, Mr. Emigh likes the Coast first rate.



**C. W. SHERMAN**  
Manager of the Bag Division (left)

**DAVID JOHNS**  
Superintendent of the Bag Division  
(right)



**A**LTHOUGH L. B. Baker, pulp mill superintendent at the St. Helens Pulp & Paper Co. was born in Michigan, he came out to the Pacific Coast at an early date and worked in the big woods, much of the time as locomotive engineer in those early days, as far back as 1905. Incidentally in those years he hauled many a trainload of logs to be dumped into the Columbia almost on the spot where the paper mill now stands.

There followed a number of trips back and forth between the Pacific Coast and Michigan, always with a look back toward the Coast where even in the early days Mr. Baker felt that some day there would be paper mills.

In 1917 he got seriously into the paper mill business and went on construction work of the Filer Fibre Co. at Manistee, Michigan. Later, when the mill went into production he went on as foreman in the kraft pulp mill and subsequently became a day superintendent there. He became acquainted with Mr. Oberdorfer back there in Michigan and when the time came to start the St. Helens Pulp & Paper Co. Mr. Baker welcomed the chance to return to the

Pacific Coast and came out to St. Helens with the beginning of construction in 1926 and has been there since.

\* \* \*

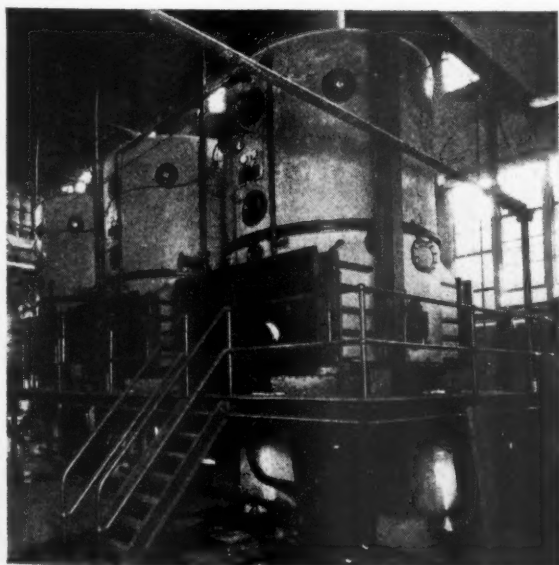
**R**ALPH REID, head chemist of the St. Helens Pulp & Paper Co., is a Pacific Coast product. When he had finished his chemical engineering studies at Oregon State College at Corvallis he looked into the work-a-day world and when he applied for a job as chemist in pulp and paper mill the head chemist looked him over and asked if he had ever had any paper mill experience. Answered in the negative the chemist shook his head and said in effect that unless Mr. Reid had made up his mind he would like the paper mill work there wouldn't be any chance.

As a matter of fact, Mr. Reid points out, the young chemist out of college very seldom knows just what he would like to do, but if he knows his fundamentals and applies a little common sense in using them he will get along. He went to work for a consulting chemist in Portland and worked in his laboratories for four years. He began leaning toward paper mill work and later went in the West Linn, Oregon, mill of the Crown Willamette Paper Co. for two years. When the St. Helens Pulp & Paper Co. was organized and was ready to turn out paper Mr. Reid joined the organization and has been with them right since their start.

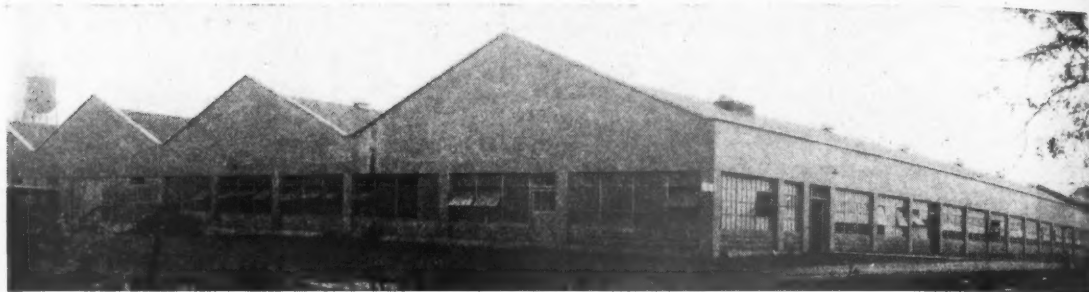
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**M**ANAGEMENT of the Bag Division of the St. Helens Pulp & Paper Co. is under the direction of C. W. Sherman. Born and raised in the state of Michigan he followed a bent for figures and went to Chicago to engage in public accounting. The war came along and he put in a year in Uncle Sam's Army. A brief reentry into the accounting field followed his soldier service and then came an opportunity to go with the Victory Bag & Paper Co. at Marinette, Wisconsin.

There his activities spread beyond the accounting field and over the whole field of activities in bag making. He remained at Marinette for 10 years during which time the company came to be a wholly owned subsidiary of the Continental Bag & Paper Corp. Following this decade he made a brief sojourn in Southern California and then joined the St. Helens company on August 1, 1929.



Zarembo Evaporators Are Used in the Recovery Room



An Exterior View of the Bag Division Which Was Completed During 1929

**D**AVID JOHNS was born and raised on the Pacific Coast and his life has virtually been dedicated to the manufacture of paper bags. Back in 1899 he went to work for the bag factory of the Crown Paper Co. operated at San Francisco and later at Camas, Washington.

In 1913 Mr. Johns went to work for the Taylor Paper Co., since out of business. Shortly after he was employed by the California Bag & Paper Co., which the St. Helens Pulp & Paper Co. later purchased and moved to a new daylight factory adjoining the paper mill at St. Helens. Mr. Johns made the move and put the new plant, of which he is superintendent, into operation.

\* \* \*

**I**N the fall of 1928 the California Bag & Paper Co., operating a complete paper bag factory at Emeryville, California, passed into the hands of the St. Helens Pulp & Paper thru purchase. As the bag factory had, even prior to the purchase, afforded an outlet for a considerable tonnage of St. Helens kraft, the purchasing company decided that a more economical operation could be effected by moving the paper bag factory to a site adjoining the paper mill.

Operations were continued at the Emeryville plant until the spring of 1929 and then, with the completion of a new and modern 320x240-foot one-story bag factory at St. Helens, the Emeryville plant was closed down and the business and equipment moved north to St. Helens. The new factory is of fireproof construction, with plenty of daylight, and built expressly for its present purpose. The business is now operated as the Bag Division of the St. Helens Pulp & Paper Co.

The bag factory is divided into several depart-

ments, including bag machine room, finishing room, printing room, paste room, machine shop and warehouse. As all departments are on the same floor interdepartmental traffic is reduced to lowest terms of simplicity and economy.

Some forty bag machines are installed and about 100 employees are carried on the Bag Division payroll. The plant has a daily capacity of from one to two cars of paper bags daily. Its products include a full line of grocers' self-opening and square bags as well as notion, millinery, sugar, nail, shot and satchel-bottom bags. The Bag Division also goes in for a number of specialties such as glassine bags, coffee bags and bags for bakery products.

Finding that there is a general trend toward the more extensive use of printed bags the St. Helens factory has equipped a print shop to take care of this class of business. The entire factory output is distributed by the Graham Paper Co.

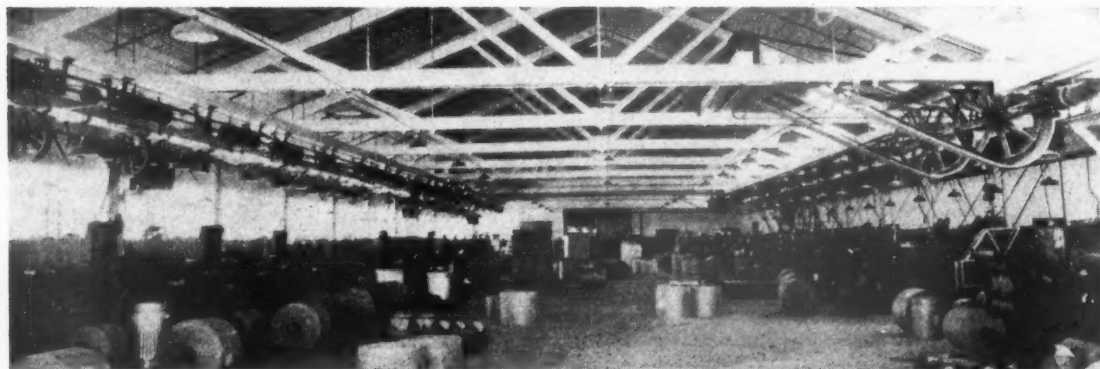
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**T**HE name of Jaite dates back in paper industry history for 57 years, to a time when a Jaite supplied the first news print for now widely known Scripps papers. Drifting into other lines the Jaite activities covered an extensive territory in paper in succeeding years.

About 20 years ago they began manufacturing heavy duty bags and, while they still operate their own paper mills back in Ohio.

The Jaite Co. began production in its St. Helens factory in August, 1928, and has steadily expanded. It has a present daily capacity of 100,000 single- and multiple-wall bags of several styles for bulk products such as cement and plaster.

Harry Strom is in charge of the Jaite plant.



The Forty Odd Paper Machines in the Bag Division Turn Out a Complete Line of Products

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# How St. Helens Controls Mill Operations

As Explained by Ralph Reid, Head Chemist

**T**HE most modern and up-to-date paper mill cannot operate and meet present day competition with any degree of success without some means of controlling its operation. It must control the quality of raw materials, finished products, and methods of converting the one into the other so as to maintain a certain quality in the finished product with a minimum of wasted time and material. At the same time, we should not forget that the main objective is the production of paper and not the collection of unlimited and useless data.

The aim of the control methods at St. Helens is to get as much information as can be useful in efficient operation and maintenance of quality, and at the same time, get as little as possible so as to save time and temper in gathering and digesting it. The control work itself is carried on largely by the operators in the mill with occasional checks made by the laboratory. Recording instruments are used as much as possible at points when it is desirable to have continuous records. Raw materials are tested by the laboratory.

In the recovery room the green liquor is tested hourly at the clarifier and often enough at the dissolving tanks so that the clarified liquor is held at the desired gravity. In the slaker house we control the burning of reclaimed lime by the use of a draft gauge in the stack and a pyrometer, the thermocouple of which is inserted through the wall of the firing hood of the lime kiln. Under- or over-burning is noticed immediately in the quantity and quality of cores, which pass through the continuous slaker. The slaked green liquor and lime sludge are pumped to batch settling tanks where each batch is tested before it is finished and a final adjustment of lime made. A record is kept of the test of each batch of finished liquor, which serves as a guide in the preparation of succeeding batches.

In the digester house the liquor usage for each cook is registered on a recording liquid level gauge which is connected to the white liquor measuring tank. The cooking process itself is controlled by means of recording pressure gauges. The end point of each cook is determined by visual inspection of pulp samples drawn from the digester.

The washing of pulp after it is blown into diffusers is followed by use of hydrometers. The end of the washing process is determined by observation of the final wash water.

The pulp refining in the beater room is followed chiefly by the use of a recording vacuum gauge connected to the vacuum line from the suction couch roll. Alum usage is controlled by use of pH determinations made on the white water from the paper machine.

The stock losses in the white water from the paper

machine are checked periodically by testing samples of white water taken at the Oliver filter.

The finished paper is tested for basis weight, bursting strength, tear, moisture and degree of sizing. Some special grades are also tested for porosity and bulk. The basis weight of paper made on the paper machine is regulated quite closely through the aid of a stock regulator which holds the machine furnish at uniform consistency. The moisture in the finished sheet is controlled by the use of an automatic steam regulator which operates the valves admitting steam to the dryers on the paper machine.

Hogged fuel is used in the boiler room and steam pressure is held quite constant by means of automatic damper regulators. The water level in the boilers is regulated with automatic feed water regulators. Feed water temperature is recorded on a recording thermometer. As the steam load is quite steady the feed water temperature is hand regulated and held within narrow limits. Decoding and integrating flowmeters give a record of steam produced by each boiler and steam consumed by each of several departments. Internal boiler water treatment is used in order to minimize the expense of cleaning and retubing boilers.

This brief outline gives a picture of the control procedure in the manufacture of St. Helens kraft papers.

## Graham Paper Co. Now 75 Years Old

One of the oldest paper distributing organizations in the United States, the Graham Paper Co., is this year celebrating its seventy-fifth anniversary. The company was founded in St. Louis, Mo., in 1855.

Spreading from St. Louis, the company now has branches in all the principal cities of the west and the south, from Chicago to San Francisco, and from New Orleans to Seattle. The home office is still in St. Louis, but branches are maintained at San Francisco, Portland, Ore., Chicago, Kansas City, Nashville, New Orleans, Birmingham, San Antonio, Memphis, Seattle, Los Angeles, Salt Lake City, Denver, El Paso, Dallas, Houston, St. Paul, Minneapolis, Oklahoma City and Wichita.

C. E. Swick, is manager of the Pacific Coast division, with offices at 311 California Street, San Francisco.

The officers of the Graham Paper Co. are: M. J. Collins, president; C. W. Lewis, vice-president; J. O. King, vice-president and treasurer; and E. G. Kerwin, secretary.

At the present time the Graham Paper Co. is the exclusive selling agent for the Hawley Pulp & Paper Co. and the St. Helens Pulp & Paper Co.

What has

# TOWNSITE MANAGEMENT

to do with profits?

An article based on data supplied

By C. R. LEWTHWAITE  
Townsite Manager, Pacific Mills, Ltd.

**F**ROM the scenic standpoint the 325 miles of rugged and sparsely inhabited country flanking the tortuous waterways north from Vancouver to Ocean Falls in British Columbia leaves little to be desired. Mountains, timbered slopes, loggers, fishermen. Pretty coves, bays, inlets.

As you near the paper mill town you may have some misgiving about the captain of the trim coastal liner having lost his way, for the ship seems to be pushing up a flooded mountain valley where great cliffs of rock rise sharply from the very water's edge. Surely there will be nothing to do but turn about when the steamer reaches the blank wall down there at the end of the inlet. But no, the helmsman puts the wheel over and opens a new vista beyond an unsuspected bend.

There, nestling in a deep cup in the mountains at the end of the inlet is the paper mill town of Ocean Falls where Pacific Mills, Ltd., converts wood and waterpower into pulp, paper and profits.

At the left a goodly cluster of trim white cottages stand revealed, ranging up the sharp slope and stringing out a bit along the narrow shore. At the right are the more rectangular and somber buildings of the mill itself sending out the hum of industry across the water.

Between the domestic and industrial divisions of Ocean Falls the short-lived Link River tumbles down from the high dam above through spillways and turbines. There is a bridge of wood and steel across the river, an artery of commerce tying together the two sides of the paper city. That bridge is important, but its relative importance in tying together the industrial and domestic activities of Pacific Mills, Ltd., is not much when compared to a greater, but intangible, link. This greater tie can not be measured in physical terms. Rather, it is an activity which in the organization chart of the company would be represented by a little rectangle with a line attaching it to the resident manager's office, and the title would be "Townsite Department."

## Living Conditions Important Factor

All this to do about scenery and bridges may seem like a straying into romance from the paths of more austere industrialism, but even to those whose spectacles are not rose colored but etched instead with the sign of the dollar there is much of meat in this subject. The townsite department at Ocean Falls is an important factor in just pure profit and loss.

The management of Pacific Mills, Ltd., early realized that when a paper mill is established 325 miles from the nearest metropolis with boat transportation the only

kind possible that a large contributing factor towards the successful operation of the mills would be the providing of satisfactory living conditions for the mill's employes and their families. It is with an eye upon this desirable successful operation of the industrial side of Ocean Falls that the townsite department has always considered the many problems and difficulties that have come before it for solution on the domestic side of the river.

## Company Owns the Entire Town

Ocean Falls is a company-owned town. The company owns the mills and the land they stand on. It owns all the residential property, the houses, the store, the hotel, the small boat wharf and repair shop, the hospital. It is unnecessary to extend the detail. The company owns the town.

Now the management of the physical properties in a townsite are not so difficult, but the job hardly begins there. The townsite department must deal with more fickle things such as temperaments of the fallible human. The ordinary factory which draws its employes from the surrounding community has only to deal with the actual employe, but in an isolated community and company-owned town such as Ocean Falls the women folk must have a lot of consideration also. Their happiness and comfort must be considered or the matter of keeping the wage-earning members of the family contented becomes difficult. All this wonderful scenery that's been mentioned will not in itself bring about this desirable happy mental state.

Ocean Falls is a company-owned town, true, but it is a far cry from the ordinary version. There are none of the usual earmarks of the "company town" such as rows of drab, cheaply constructed houses all cut from a pattern. Instead there is a pleasant individuality in the homes, lots of fresh paint, green lawns, lots of flowers. The impression of the first-time visitor is that it is a pleasant place to live.

In the first place the topography of Ocean Falls immediately throws out of consideration the development of townsite on ordinary plans. It has been necessary to actually hew the town out of the hillside of rock, and with the small amount of ground available it has been somewhat of a problem to create desirable lodgings for some 2,000 people.

Because of the limited area the town has not been laid out with the conventional roadway, parking and sidewalks. Instead, the park drive combination roadway and walk with parking between road and houses was adopted as the most economical both for space and con-

At Ocean Falls, the townsite department has done wonders with the ground with which it had to work.



pediments are placed in the alleys. There are no fences built outside of the front line of houses, and this construction has a tendency to make the streets appear wider than they really are.

The single residences are standardized without standardization. In other words, the houses all have that appeal of individuality because they follow individual patterns for the house as a whole, but are standardized on such units of construction as dimensions of doors and windows. All homes are of double construction with modern conveniences.

House rentals are based on flat rates of so much per downstairs or upstairs room.

#### All the Conveniences of the City

Many of the houses have electric ranges and heaters. The company supplies the first 40 K.W. free, charges 2c for the next 160 K.W., 1c for the next 200 K.W. and 1/2c for current in excess of 400 K.W.

There is a parking and gardening department which keeps the park strips, plant borders, flower boxes, etc. Plants are grown in the company's own greenhouse and are sold to tenants at market price with free planting. Window boxes are installed on a 50-50 basis and in this way the citizens are encouraged to plant flowers around their houses.

In addition to the single residences there are two 16-suite and one 20-suite furnished apartments which rent from \$25 to \$40 per month, which charge includes heat and light. There is also a large hotel with dining room, rooming houses, and girls' dormitory. A laundry and bakery are included in the hotel group.

The town is served by an up-to-date general store operated in separate departments under one management. It has been enlarged from time to time both in respect to size and facilities as requirements have dictated. From the standpoint of service and class of goods its standards are exceptionally high. In fact the store management, always open to the complaint that it has no competition to measure its service, is keenly conscious of this state of affairs and prefers to "lean over backwards" to give the best, thereby nipping in

the bud the criticisms of even the most petulant housewife.

The store bases its commodities on Vancouver prices. It operates in conjunction a refrigerating plant with large cold storage rooms and ice tanks, with a separate automatic system for the soda fountain, and a milk plant where milk, cream and ice cream are manufactured from milk powder and butter fat.

For the sick and injured the company conducts an unusually up-to-date 30-bed hospital on a cooperative basis at a cost of about \$1.50 per month per employee. There are two doctors, nurses, x-ray equipment. Incidentally, they are sticklers on Safety First at Ocean Falls. They try first for the prevention of accidents, but at the same time stand ready to meet the unexpected by having stretchers and first aid kits located at convenient points throughout the mill.

#### Schools and Recreation Provided For

As for schools and churches there are both grade and high schools with high educational standards, and of churches there are three, Anglican, Catholic and United, the latter embracing the Methodist, Presbyterian and Congregational organizations.

There is a library with 1,500 volumes operated with the help of a small membership fee.

For recreation the Ocean Falls citizen has much at his command. He can go to the theater where often new pictures are shown for the first time in British Columbia, not excluding Vancouver. The theater is in a substantial building 40x120 feet, with theater auditorium on the main floor, dance hall above and bowling alley in the basement. Films are shown four nights and one matinee each week. Aside from the cinema there are frequently other entertainments, concerns, amateur productions by local talent and not to forget the big annual community Christmas tree where every child up to 12 years old receives a substantial present.

If the Ocean Falls citizen wants more action he can go in for baseball, football, lacrosse, and similar field events at the ball park which the company has laborious-

(Turn to Page 44)



# Technical Control---

## What's in it for the Chemist.

By CHARLES A. NEWHALL\*  
Chemical Engineer, Seattle

**T**HE profits realized by an industry making practical application of the discoveries of science were discussed in the preceding articles of this series. Here, the profits to be reaped by the men actively engaged in this practical application will be set forth.

During the past few years, and only about the last three years here on the Coast, executives in the pulp and paper industry have come to recognize that applied science brings actual cash returns to their business. However, the technical man, upon whom the responsibility rests has not yet profited in proportion with his ability and training. It may be safely stated that the majority of technical men in Pacific Coast mills could earn collectively, thousands of dollars more each year if they were engaged in manual labor or worked in the machine rooms as helpers or third hands. In the East, on the contrary, the technical men in the industry, especially the chemists, find greater opportunity, more encouragement, and higher salaries.

Two factors influence the ability of the technical man to make money for himself. The first, and most important, is a thorough understanding of the fundamental principles of the special science. The second, is to know how to apply this knowledge. A third, though usually a very minor requirement, is what might be called an ability to "sell one's self" to the firm. Experience and observation confirm the fact that opportunity and good salaries come to the man who has the first two requirements. Even a narrow-minded manager cannot fail to recognize results. Only the stupid or venial manager seeks to discourage the really capable man.

### Success Depends Largely on Individual

There is no getting around the fact that many technical men with real ability are not succeeding, but of about a hundred cases, coming within personal observation, not one is being deliberately underpaid or otherwise handicapped. Adversity is usually of its own making. Few companies are unwilling to pay the current rate for technical service or refuse to offer opportunity to apply technical knowledge. Two managers at the present time are willing to pay considerably more than the average for several technical positions merely because the men they get must have several characteristics not ordinarily attributed to the well trained technical man.

A few illustrations will serve to point out why many men are not getting ahead through some fault of their own.

**CASE I.**—A man about forty-five, a graduate of both American and German universities, with a wonderful personality, and unusually well qualified scientifically, missed any number of opportunities to win advancement to highly paid managerial and executive positions merely because he was unbelievably lazy. He died while active, the chief chemist of a small mill, when he had

struction cost. All electric light poles and similar in the actual knowledge to carry him to the very top of his special field. But the management of this and other mills recognized his limitations.

**CASE II.**—Here is cited a common fault. A young man about 24 years old, a university graduate and an able as well as ambitious scientist, supervised the laboratory very successfully. When an advanced position to which he aspired was given to a man not a graduate chemist and admittedly less skilled in the technical end of the work, he quit. He knew his science, but he had no experience or training in one essential thing—namely, ability to deal with men. It so happened that the management had great regard for his potential ability and intended to train him for advancement. This is a case where undue ambition and intolerance worked a hardship.

**CASE III.**—This represents by far the most common reason for men not getting ahead. This technical man was a highly trained and skilled scientist, a university graduate, and quite ambitious. But he did not know how to size up his job and the men with whom he had to deal. The manager of the mill knew nothing of the science of chemistry itself—he merely knew that certain simple routine chemical tests must be made in order to operate the mill. Scientific men all "make me nervous", he would explain when a consultant was called in to help straighten out the technical department. This chemist being a research man, was accustomed to fine equipment and surroundings. His idea of accuracy reached to the thousandth decimal place, whereas all the management wanted to know could well be taken care of in round numbers. He made the management nervous by continually asking for new equipment and by wanting to change old and tried methods. The foreman and workmen did not like him because he was "highbrow".

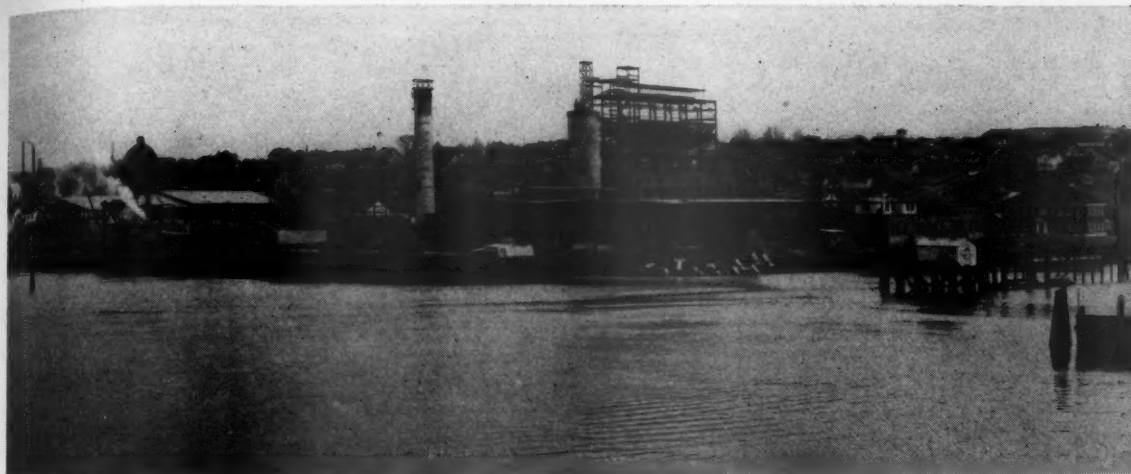
Instead of discharging this man, the consultant found him a better position where a research man was needed, and his place was filled by a young man who was learning his science from a correspondence school and through an apprenticeship. This young man knew little about science as yet, but he did know how to get along in the world. He was not above running errands for the foreman and he let the superintendent talk to the management when new laboratory equipment was needed.

### The Right Man for the Right Job

One finds such misfits time and again; a research man in a routine position, an analyst where a chemical engineer was needed, or a cautious plodder a failure where a venturesome research man would have been a success. Technical men should use the same care and skill in analyzing themselves and the work in hand that they use in analyzing a complex ore, or solving a problem in chemical engineering. Inability to do this and to act on the results of their investigation means failure in

Editor's Note—This is the third of a series of articles by Mr. Newhall on technical control. The fourth and concluding article will be published in an early issue.





The Puget Sound Pulp and Timber Company is making excellent progress with the construction of their 175-ton high-grade bleached sulphite pulp mill at Everett, Washington, as this view, taken early in February, indicates.

the majority of cases. Where a man makes the assay and either changes his job or changes himself accordingly, there is, apparently, no limit to the financial and professional success possible.

There are several methods and tools of which a man may take advantage in making this very important assay of himself and his job. It is too bad that the universities do not teach more about how to hold a job, and a little less about the tools and methods of science. A man would be saved much grief and disappointment, and employers much financial loss, if he could learn early in his professional career some of the very essential things that our past and present day system of technical education compels him to learn rather late in life by the very costly method of practical experience.

#### Technical Association Memberships

The balance is the chemist's most essential technical tool. Membership in the American Chemical Society, is perhaps the chemist's most essential economic tool (or he may belong to the other professions in the A. S. M. E., A. S. C. E., A. D. E. E., etc.). To derive real economic benefit from his membership, a man must take an active part in the local and national activities of his society, attend meetings, serve on the committee, hold office, compare notes with his fellows as to jobs, salaries, working conditions, company policies, etc. Dozens of technical men have found their great opportunity thru contacts made in their professional society meetings. The first money a man earns thru the practice of his profession should be spent for a membership. He owes it to his profession as well as to himself.

If a man decides to specialize in one limited application of his science, he can well afford to join and take active part in the special organization representing that particular field. TAPPI is an outstanding example of the value and need of such special organizations. The pulp and paper industry is adopting technical methods so very rapidly that there is great need for the kind of work TAPPI is doing.

Perhaps one reason the technical men in Eastern mills have done better in an economic way is their active participation in the work of A. C. S. and TAPPI. The more progressive Eastern mills encourage their technical men and responsible operative officials to attend the meetings of those technical organizations,

even to the extent of allowing expenses and company time.

#### Other Steps up the Ladder of Success

Other valuable tools are the local fraternal orders, service clubs and political parties. Terms served as town councilman and precinct committeeman were, according to one chemist, about the most interesting of his life. He learned things that made him a more able chemist and rendered his services more valuable to his clients and employers.

On the other hand a very skilled engineer was about to leave his profession because he was discouraged. His only trouble was a pitiable inability to express himself. Even among his closest friends, when called on to speak, he would be seized with stage fright. Someone interested him in the work of the American Association of Engineers, a great welfare society. He eventually became a polished speaker and lecturer, and is now one of the leaders in his branch of technical work, and is paid in accordance with the importance of his activities.

More and more, as the technical man fits himself for wider fields of usefulness, he is being advanced to managerial and executive positions. The chemist, especially, from the important basic fact-finding nature of his reasoning, can, if he will, handle any industrial or economic situation better than the man who has never had the technical training. In the East one is coming more and more to find technical men at the head of the great research and development organizations—men who receive incomes of six figures thru their salaries and royalties.

The rank and file technical man can, and should, get an income of \$6,000 to \$12,000 a year by the time he has been practicing ten years. A starting salary of \$3,600 is the minimum for a chief chemist. A beginner should be lucky to serve his apprenticeship period, if under a good chief, at a maximum of \$2,400.

Many concerns start a graduate chemist at \$150 a month and keep him at this for two or three years. All technical engagements should be entered into only after careful checking of men against the requirements of the position; and when the right man is located the engagement should be by formal contract, usually for a period

(Turn to Page 47)

Prospects are bright for

## New Grays Harbor Pulp Mill

Blagen interests practically assure building of  
100-ton unit in connection with present sawmill

**H**OQUIAM, WASHINGTON, has practically been assured that it will have another pulp mill of 100 tons daily capacity if a \$100,000 bond election is successfully carried on March 1. The funds would be used to join Hoquiam's system with the 60,000,000-gallon industrial water supply completed by the neighboring city of Aberdeen about two years ago.

It has been mooted about in the Grays Harbor district for two or three years that the Grays Harbor Lumber Co. was investigating the possibilities of tying in a pulp unit with their extensive operations.

C. G. Blagen, general manager, who has been the principal figure in the pulp project, on February 4 approved a statement regarding the company's pulp mill plans which was made public thru P. J. Mourant, a member of the water committee of the Hoquiam Chamber of Commerce.

The statement said in effect that the Grays Harbor Lumber Co. had been negotiating with pulp interests for some time but had reached a standstill on the question of water. Mr. Blagen had agreed to furnish hemlock chips and power from the Grays Harbor Lumber Co. sufficient to operate a mill of 100 tons daily capacity. The successful outcome of the \$100,000 water bond election was, therefore, of vital importance in furthering the pulp mill plans.

The statement pointed out that the establishment of the pulp mill would require the steady operation of the lumber mill with two shifts a day, and that, furthermore, the establishment of a paper mill in connection was a logical sequence of events.

### Absolute Protection Assured City

Mr. Mourant pointed out that the city would have absolute protection if the bonds were authorized as agreements would be made between city and pulp mill interests necessitating no expenditure on the part of the city unless the pulp mill were built. The city would have a bona fide contract that the pulp mill would buy and use and pay for the water before the pipe line could be built. The statement as made is quite a definite commitment that the Grays Harbor Lumber Co. intends to do something. The company is known as one taking deliberate and careful action.

The Grays Harbor Lumber Co. has a K-1 rating in the National Lumber Manufacturers' Association, a standing which necessitates a net worth of \$1,000,000 or over, and it is known as one of the strongest lumber manufacturing organizations on the Coast. Its Grays Harbor sawmill has a daily capacity of 250M feet of lumber. The company buys its logs on the open market.

It is said that this project was near to completion some months ago, that capital had been assured, but that when it was unsuccessful in bidding for a huge tract of timber in the Quinault Indian reservation—several companies made bids for parcels of this timber

and all were rejected—the pulp mill plans went temporarily on the shelf.

What interests are behind the proposed Blagen pulp mill could not be ascertained, but it is believed that at least one other prominent Grays Harbor figure is involved, together with some substantial outside capital and long-experienced pulp manufacturers.

Grays Harbor is generally considered to be one of the best pulp locations on the Pacific Coast, with sufficient timber back of it to insure perpetual operation for a goodly number of mills. The country has a climate particularly conducive to the rapid growing of heavy stands of timber. Work is now about to start on a 60-mile railroad, to be built jointly by the Union Pacific and Northern Pacific, and to run North from Grays Harbor to tap the greatest remaining stand of virgin timber in the world. Most estimates hold the timber in this area to be at least 50 per cent pulp timber.

Grays Harbor has deep water shipping, and the Blagen mill has excellent accommodations for berthing ocean vessels at its own property. The property is also served by main line railroads.

### Port Mellon Meeting in February

The annual meeting of Vancouver Kraft Mills, Ltd., will be held in Vancouver on February 22, when it is expected that a definite program for the company will be settled upon. F. W. Leadbetter and other officials of the company will attend.

Although close to \$1,000,000 has been expended on various improvements at the Port Mellon, Howe Sound, British Columbia, site of the Vancouver Kraft Mills during the past year, operations were shut down before the production stage was reached. Certain construction work in connection with the kraft mill was suspended, although the sawmill to operate in conjunction with the pulp plant was completed.

One of the reasons given for the shutdown was a readjustment of sales arrangements by the Leadbetter interests controlling the mill. It is understood that all difficulties have been smoothed over and that the plant will be placed in operation early in the spring, although official advices are likely to be lacking until after the meeting.

### Western Converting Company Office Moved

Portland offices of the Western Paper Converting Co., Salem, Oregon, were removed last month from the Lumbermen's Building to the general offices of the Leadbetter interests in the Oregonian Building in that city.

A. B. Galloway, who recently succeeded C. F. Beyerl as general manager of the Salem converting plant, was expected to return from an eastern business trip about March 1.

### Cameron Makes Statement on Alaska

George T. Cameron, publisher of the San Francisco Chronicle, and co-holder of an important pulp timber concession in Alaska, has authorized the following statement for publication in PACIFIC PULP AND PAPER INDUSTRY with respect to the proposed development of a paper mill in Alaska by him and associates:

"The so-called Cameron-Chandler project in Alaska includes myself and Mr. Harry Chandler of the Los Angeles Times, who own the timber concession comprising the territory adjacent to Juneau; known as timber allotment "A" by the Forest Service. The surveys of the timber made under the jurisdiction of Mr. K. O. Fosse and Mr. Don Meldrum have been completed and Mr. Meldrum is now in Washington to make the formal selection of the areas required to be selected by June 1st of this year.

"This completes the necessary formalities prior to beginning operations of cutting and logging which will not commence until just before a mill is completed.

"The water at Long Lake and Crater Lake has been measured now for many years and an assured source of power is obtainable.

"The new power, called Dorothy Lake, on Taku Inlet, discovered by the Navy Fliers last summer, is also embraced in these water powers, permits for which have been issued and licenses to which are soon expected to be issued. As no measurements have ever been made on Dorothy Lake prior to September of last year not even an approximation can be made as to what the horse power will be—the elevation is over 2,400 feet and at this elevation no records of precipitation have been taken. It is probable that they are lighter than at the lower elevations, such as Long Lake and Crater Lake.

"It is not possible to state definite progress for the future until all of the known facts have been gathered together and engineers estimates have been compiled nor will permanent financing be possible until all these factors and estimates have been fully determined.

"The surveys show the timber to be of slow growth and the forest an old one containing not only young trees but also many of great age, in many cases having heart rot.

"It will take some years of actual cutting to determine just what the relation between the cruise and actual production will show.

"The proportion of spruce and hemlock is approximately that shown in the Government prospectus.

"No definite site for the plant has been or will be decided upon until all other factors have become definitely known."

In recent months the unsettled newsprint situation on the North American continent has thundered through the ranks of the big daily publishers, rolling echoes through provincial governments and booming along through the Eastern mills in both Canada and the United States. The unsettled price situation has plunged into the forgotten limbo of the past—at least for the publishers—those war days when newsprint sold for nearly three times its present price. They now squeal at \$60 news and talk of new sources of supply, and cast longing eyes at Alaska.

A great burden of proof can be offered to show that Alaska holds at least one important key to the future situation of newsprint supply. But a few professional busybodies cry out in the night about the impractical side of looking to Alaska for paper supplies. But perhaps their sayings are striped with dollars and fat with instruction from Behind the Scenes.

True, Alaska is a bit far away, but so is Ocean Falls. The mills pushing into the more northerly reaches of Canada in recent years have not much claim to southerly location over the proposed Alaska mills. Further, the mills of Eastern Canada must contend with extremes of sub-zero temperature, with ice-locked rivers that tie up pulpwood ingress and paper egress.

The Alaska coast is mild and rainy. The harbors are deep and never frozen. The wood grows much

faster and more densely than in the eastern part of the continent.

Believe it or not, while Alaska may be belittled by reason of its having been talked about as a potential source of pulpwood for years and years, the fact that the economics of the situation are now fast approaching the favorable and the northern territory is an ace to be reckoned with in the game of paper manufacture.

THE NEW LAID EGG METHOD OF TESTING THE SELECTIVITY AND SEPARATING POWERS OF A BIRD SCREEN



### Explaining British Preference for Bird Screens

This stirring action sketch by the British artist, Heath Robinson, is reproduced from the Christmas announcement of Vickers Ltd., London representatives of the Bird Machine Co.

It presents one of the tests conducted, according to the announcement, in the Vickers Laboratories to convince British paper makers of the qualities of the Bird screen. We submit it for your serious consideration.

### Powell River Gets Phone Connection

Successful experimental telephone conversations have been held between Vancouver and Powell River by means of a combined wire and radio-telephone service provided by the Northwest and British Columbia Telephone companies.

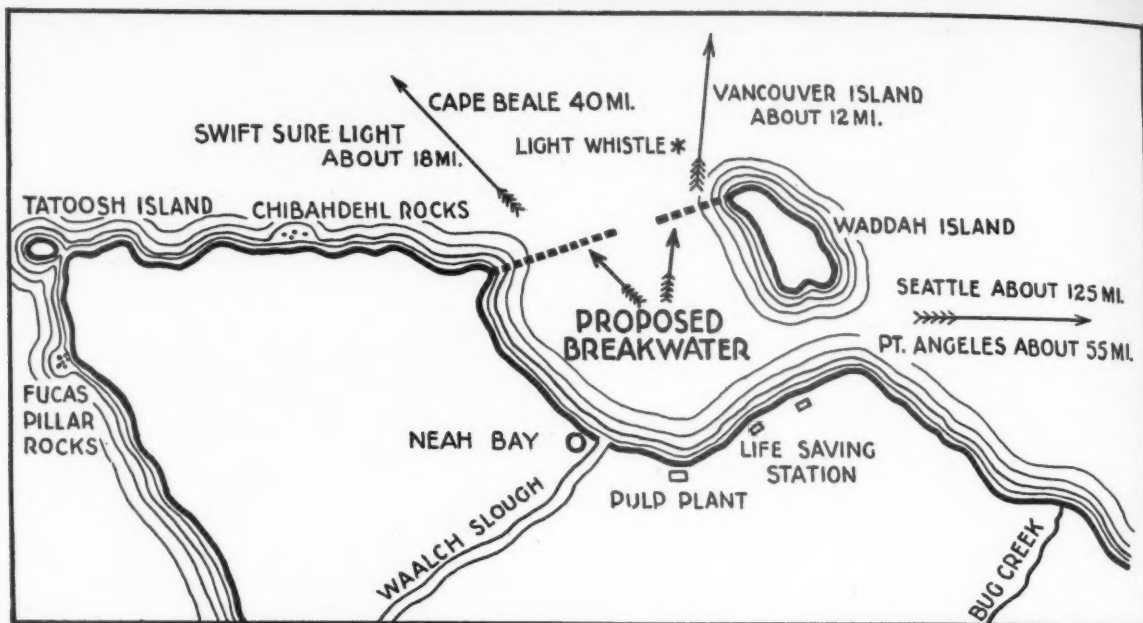
This arrangement gives facilities for direct communication between the head offices of the Powell River Co. and the mill town seventy miles away. The first persons to put in a call over the combined line were R. Bell-Irving, mill manager at Powell River, speaking from Vancouver, and Mrs. Bell-Irving.

### B. F. Myers to San Francisco

Effective the first of the year B. F. Myers, who has been with the Seattle branch of the Zellerbach Paper Co. for 10 years as credit manager, was transferred to San Francisco headquarters where he is to have supervision over credit departments of all the Zellerbach divisions.

L. F. Lowe succeeds Mr. Myers at Seattle. He was one time credit manager of Blake, Moffitt & Towne's Seattle branch.





Neah Bay, located at the extreme Northwestern tip of Washington, is no longer an isolated Indian outpost, but the center of extensive sea fisheries and pulpwood cutting. All operations are seriously handicapped by lack of a suitable breakwater. This

lack places all shipping at a serious disadvantage. The sketch shows the approximate location of a breakwater, but is not intended to indicate the type. Present prospects are that Congress will authorize government engineers to make a survey.

### Good Outlook For New Salem Mill

Construction of the Western Board Products Company plant at Salem, Oregon, will be started late this month on a five-acre site northeast of the city, near the Fair Grounds, according to W. H. Trindle, director for the company. The site has all the facilities necessary for successful mill operation—water, trackage, and sewage disposal, Mr. Trindle stated. The company plans to build a small trunk and binder board mill.

"While actual construction is contingent on disposal of \$15,000 worth of additional stock, permission for the sale of which given last December, we believe an outlet for the remainder of the stock will be found within a few days," asserted Mr. Trindle. "When sale of the additional stock is completed we will have a working capital of \$45,000, two-thirds of this amount having already been subscribed."

L. A. DeGuere is the engineer in charge.

### Another Mill Proposed

G. R. Gilbert of Terrace, B. C., local representative of interests which propose the establishment of a pulp mill in that district, has received advices from Toronto to the effect that if the owners of the Terrace property, on which an option has been taken, will consider time payments instead of cash the project will be put under way immediately.

According to Mr. Gilbert there will be no difficulty in arranging the terms as desired by the eastern promoters.

It is hoped to have a pulp mill, sawmill and rayon silk plant at Terrace, ultimately employing between 1,500 and 2,000 operatives.

### Houk Makes Eastern Trip

George W. Houk, vice-president of the Hawley Pulp & Paper Co., is making a trip thru Eastern states.

### Everett Mill Gets Big Timber Award

The U. S. Forest Service has made a conditional sale of pulp wood timber to the Puget Sound Pulp & Timber Co. The tract is on the watershed of the South Fork of the Stillaguamish River.

A bid of \$795,980 was submitted for the tract which consists of various classes and varieties of timber estimated at approximately 510,660,000 board feet.

Western hemlock and silver fir in the tract brought \$1 a thousand and Douglas fir, Western red cedar, Western white pine and Sitka spruce brought \$3 a thousand.

With exception of the hemlock and silver fir all of the timber in the tract will be used for pulp. Forestry officials said the tract would yield about 72% pulp wood species.

Stipulations of the contract are that all cutting will be done on seventy-year cycle basis over a designated route. Not more than 25,000,000 feet and not less than 16,000,000 feet will be cut a year.

### Giving Paper Its Chance

J. L. Murray, director of sales promotion for the Everett Pulp & Paper Co., Everett, initiated several score publishers of large and small papers in the state of Washington into the mysteries of paper making when the publishers held their eighteenth Annual Newspaper Institute at the University of Washington, Seattle, January 23-25.

Mr. Murray told these printer-publishers something about "Giving Paper Its Chance." The substance of his talk was on some of the peculiarities of paper, and how to handle them in order to get best results.

### Everett Salesmen Visit Home

A. A. Ernest and Augustus Johnson, representatives of the Everett Pulp & Paper Co., at Los Angeles and San Francisco, respectively, were visitors at the company's mill at Everett during January.



## Oregon Capital Plans

## Paper Mill for Eugene

Which May Begin Construction Soon

**C**ONSTRUCTION of a \$500,000 paper converting plant at Eugene, Oregon, will be started in the early spring, it was announced last month by a group of local business men promoting the new venture. The mill will have a daily capacity of from 10 to 20 tons. One-fifth the necessary capital has been subscribed by those interested, and the remainder will be acquired through public financing, it was said. The company was incorporated last month as the Pacific Paper Products Co.

A two-story, 90 by 250 feet, building to house the plant is projected. The structure would be of concrete and steel construction, with provision for future expansion. A 15-acre site at the western edge of the city limits has been acquired, and an option on some adjoining property has been taken, it was declared. The mill is to be built along the same lines as leading Wisconsin specialty paper plants.

The location is adjacent to the Southern Pacific line and the Oregon Electric Railway, thus insuring excellent shipping facilities. It is planned to lay a spur connecting with each of the railway lines, although the spur to the Oregon Electric may not be laid until some time after the mill is in operation.

The plant is designed to manufacture any one of six grades of paper commonly used in specialty mills. Ultimately it is expected that fully 15 separate and distinct grades may be manufactured.

## Output to Go East by Rail

Eastern markets will provide an outlet for the company's products, most of which will be shipped by rail. While it was admitted that rail freight rates are higher than those exacted where water transportation is available, a spokesman for the company said that negotiations with railroad companies for special commodity rates are under way and that a favorable decision for the paper company was expected. The concession would also provide for a better rate on incoming pulp shipments, contracts for which have been entered into tentatively.

A specially-built Fourdriner paper machine, constructed with a view to making a speedy adjustment when it is desired to change the grade of paper, is to be installed. No announcement was made regarding other units to be installed.

Street rumors have been current for some time regarding Eugene's new industry, altho interested parties withheld any public announcement. The reason for secrecy, it is now explained, was the uncertainty as to a power rate schedule which had been asked for. The rate schedule, which offsets the freight differential between Eugene and Portland, was offered the promoters late in January and accepted. If constructed according to present plans the plant will require 14,400 k.w. hours per 24 hours.

Officers of the company are: Joseph H. Koke, of the Koke-Chapman Pring Co., Salem, president; P. J. Lamoureux, formerly superintendent at the Continental Bag Co., at Marinette-Menominee, Wisconsin, but more recently superintendent of the Oregon Pulp & Paper Co., at Salem, Oregon, general manager; George J. Wilhelm, Harrisburg banker, vice-president; E. O. Immel, Eugene attorney, secretary; and A. A. Rogers, president of the Eugene First National Bank, treasurer. Directors are Mr. Koke, Mr. Rogers, Mr. Lamoureux, Dr. W. H. Dale, Eugene physician; Roy W. Stien and Albert W. Stein, local contractors; Mr. Wilhelm, James W. Seavey, local hop grower, and Mr. Immel.

Engineering plans were completed early this month by Mr. Lamoureux and two Portland paper mill engineers whose names were not given. It is expected that the mill will be in operation early next fall.

## Seek Nation Wide Business

Crown Zellerbach Corporation this month is launching out with a national advertising campaign which marks a definite bid for nation wide business on two new products.

"Fluffing for softness", a new process recently perfected in the manufacture of bathroom tissue, which makes for greater softness and absorbency, is being introduced to the general public for the first time. The successful results of the new process have been incorporated in the two new bathroom tissues, Zee and Zalo. Crown Zellerbach Corporation, the makers, are introducing Zee and Zalo with an extensive national advertising campaign.

Production on both new brands has been underway for some time at the company's mills at Camas, Washington, for distribution to Western states and at the corporation's enlarged mill at Carthage, New York, for Eastern distribution.

Zee and Zalo are being introduced to the American public with what is said to be the most impressive campaign of national advertising ever used to announce a bathroom tissue. It is particularly noteworthy that this Western Corporation with its Coast Mills and factories has inaugurated this merchandising campaign on such a nationwide scale.

Zee and Zalo will be marketed by the National Paper Products Co., a division of the Crown Zellerbach Corporation. They will be distributed through the regular jobber and wholesale channels.

## Claims Damage to Land

A Mason county rancher has filed suite against the Rainier Pulp & Paper Co., Shelton, Wash., for damages alleged to have been caused by a waste pipe line leaking over his land and polluting the source of his drinking water.

### Pacific Coast Paper Goes East

With the growing production of paper on the Pacific Coast, drawing upon the abundant and cheap wood sources, there can be no answer to the economic side of the question other than that the paper tonnage produced above the relatively small demands of the Pacific Coast market must find an outlet in the more thickly populated regions of the Eastern states. This thought has been repeatedly projected by PACIFIC PULP & PAPER INDUSTRY.

One of the most significant moves in this direction is the launching of a national advertising program by the Hammermill Paper Co., featuring their new paper, Management Bond, manufactured in the mill of the Grays Harbor Pulp & Paper Co., in which the Hammermill company holds a substantial interest. The advertising program began in the February 8, 1930, issue of the Saturday Evening Post. The initial advertisement consisted of two pages in color, one page being given over to the well known Hammermill Bond and the other page to the new Management Bond, a Hammermill product.

In addition to the national advertising the Zellerbach Paper Co., Pacific Coast distributors of the Hammermill lines, are at the same time launching a series of color broadsides to printers and others of the immediate consumer class, tied in with an aggressive campaign in periodicals going to this group. The announcement issued by the Zellerbach Paper Co. with the launching of this advertising program reads:

"The business world is now provided with Management Bond, a new low priced, water-marked paper made expressly for the general run of temporary and casual store, office and factory forms.

"Management Bond is a Pacific Coast product, made by the Grays Harbor Pulp & Paper Co. at Hoquiam, Washington. Back of Management Bond is national advertising, national distribution and the successful manufacturing experience and resources of the Hammermill Paper Co. of Erie, Pennsylvania.

"This new bond paper is specially wrapped in a new mill package which gives complete protection from the mill to the user. An inner mill wrapper protects each ream. Around all the reams is a double sheet of Safe-Pak, a water-proof paper. Then there is a sheet of heavy chip board over top and bottom which is folded over the sides; while next is a wrapping of Moistite, a moisture-proof paper to keep the paper dry, and then over all is a sheet of heavy kraft wrapping paper, tightly sealed with nine inch gummed kraft tape. It is undoubtedly the best protective package ever used in the paper industry and it keeps the paper flat.

"Management Bond is made in eight colors besides white, four weights, and six sizes, and the following are carried in stock for immediate delivery: White, in substances 13, 16 and 20. The eight colors—gray, peach, canary, buff, goldenrod, pink and blue in substance 16; all substances in standard bond paper sizes.

"Management Bond has a good writing and printing surface and the necessary strength and endurance for its field of work."

### Cathlamet Construction Delayed

Unusual weather conditions in January held up the Crown Willamette Paper Co.'s wool mill project at Cathlamet, Wash. Fortunately, however, the main building was roofed and preliminary work of placing machinery was carried on. Harry Baxter, construction engineer for the company, is in charge of the work.

### Longview Fibre Adopts 13-Period Plan

As far as the Longview Fibre Company is concerned, the orthodox calendar with its twelve unequal months no longer exists. Beginning November 1 last, the company went on a basis of 13 periods per year, and with three months of experience with the plan behind them, are content that it is a satisfactory system.

The plan is very simple as explained by L. C. Peabody, office manager, amounting only to a division of the 52 weeks of the year into 13 equal periods of four weeks each. As far as the company's operations are concerned, the months lose their identity entirely. The schedule is planned so as to have the first day of the period fall on a Monday. A schedule is then made up for the year to show the first day of each period. Thus each period has four full weeks, periods of operation exactly comparable with the exception of allowances for holidays.

One of the difficulties in keeping operation records according to calendar months is that the months vary in length, and it is therefore necessary in weighing months of unequal length against another to make explanatory notes or mental reservations. The 13-period system gives a common denominator and the only explanations necessary are notations of holidays occurring within the period.

The 13-period plan has been used for some time by the General Fibre Box Co. of Springfield, Mass., which company was acquired by the Longview Fibre Company some months ago.

In dealing with its bank, the company is given its statement according to the 13 periods. In handling payroll, the same idea is followed.

In dealing with other organizations, however, it has not been possible to dispose of the orthodox calendar. The mill's customers still get their statements as usual. Also, associations and similar institutions with which the mill cooperates in giving statistical information are given their figures according to the calendar month.

This variance between the 12-month and 13-period does entail some little extra effort, but Mr. Peabody feels that, once the change becomes routine, the extra work involved in making reports or statements not conforming to the 13-period plan is negligible and can be carried on with the same staff.

Resident Manager R. S. Wertheimer of Longview Fibre Co. catalogs the 13-period plan as one which does not bring any immediate additional cash into the company's coffers, but which, nevertheless, has merits and is worthwhile.

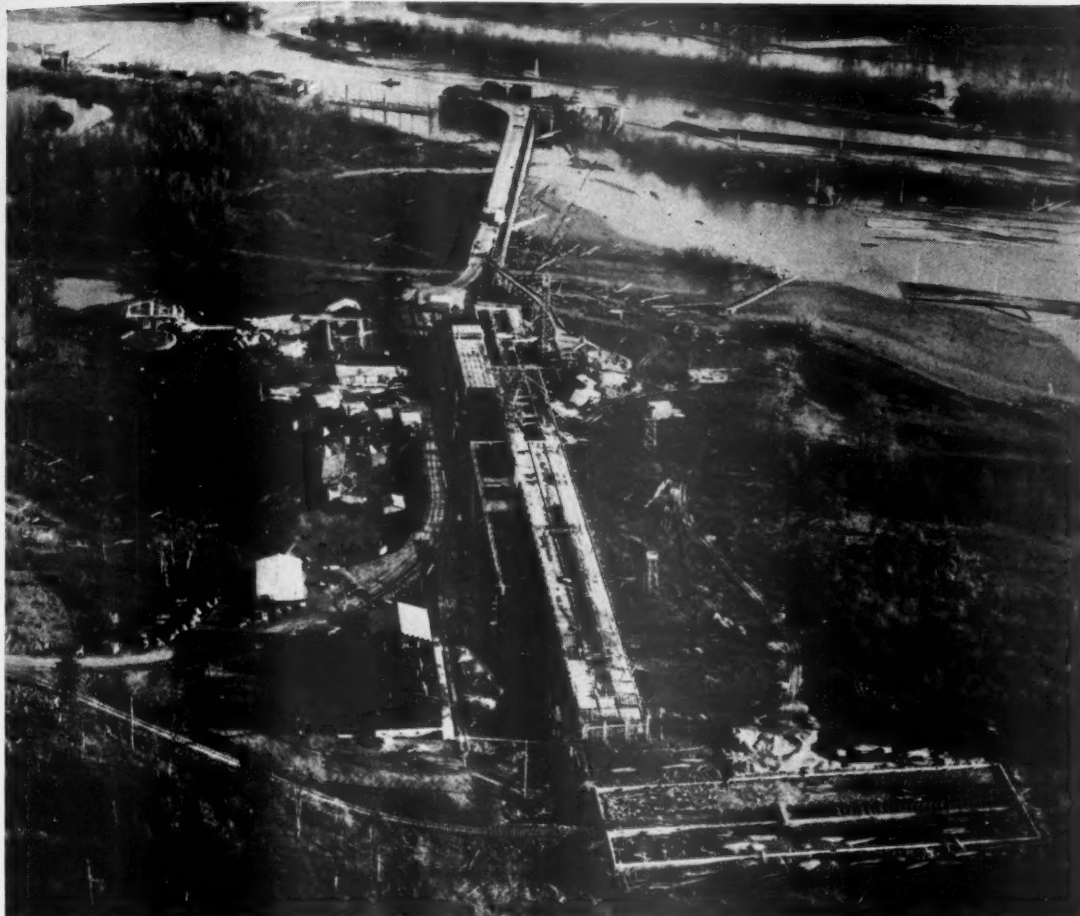
There is a feeling at the Longview mill that the 13-month "reform calendar" will eventually be adopted and, with it does become standard, matters of accounting will be just that much more simple. At the same time, there is at Longview no semblance of campaigning for the "reform calendar", it being felt, rather, that such reform will come about in due course in its own way with perhaps no general changes to be expected for many years to come.

### Changes In B. C. Pulp Staff

Several changes in the personnel of B. C. Pulp & Paper Co. plants are announced by President Lawrence W. Killam.

E. D. Slack, who has been acting as research chemist at Woodfibre, has been transferred to Port Alice, where he will supervise the acid and bleach processes.

The company has two chemists regularly engaged in research work, with four or five others on the chemical staff spending part of their time on research work.



Brubaker Aerial Surveys, Portland

This view of the Fir-Tex Insulating Board Company shows construction progress on the huge plant at St. Helens as it appeared early in January.

### Spaulding To Double Dryer Capacity

Construction of a second pulp dryer room for the Spaulding Pulp & Paper Co., Newberg, Oregon, was started early this month. The new two-story unit, which will extend lengthwise of the present dryer room, will be of concrete and timber and will be approximately 38 by 144 feet. Plans call for completion of the building in 30 days, with production starting in about 90 days. The estimated cost of the improvement program was placed at \$60,000.

A 96-inch Sumner double press wet machine, manufactured by the Sumner Iron Works, Everett, Wash., will be installed in the west end of the new building. The 100x12 dryer will be of the Fidalgo type. The dryer, embodying several advanced improvements, is expected to eliminate several operating imperfections. It is designed for a 60-ton capacity; this in addition to the present dryer will give a total drying capacity of 120 tons.

Ernest H. Schweitz and George Frogner, Portland paper mill engineers, working in conjunction with Sigord Norman, mill manager at Newberg, are handling the engineering work in connection with the new development.

As an emergency measure during the recent cold snap the boiler at the Spaulding Pulp & Paper Co. plant was equipped to burn oil.

### Hawley Adopts Bedaux Labor Measurement

The Hawley Pulp & Paper Co. last month adopted and began the installation of the Bedaux method of labor measurement. This system has been steadily growing from the original idea conceived by Charles E. Bedaux in 1911. Bedaux' basic principle of human power measurement is that all human effort is measurable in terms of a common unit made up of effort and relaxation in proportions governed by laws controlling strain.

The system has been applied to a great variety of industries on an international scale. It concerns itself only with labor measurement and does not enter into manufacturing processes.

Hawley executives report a ready acceptance of the plan by the mill employees.

### Crown Zellerbach Declares Dividend

Directors of Crown Zellerbach Corporation at a meeting Thursday, January 23, declared the regular quarterly dividend of \$1.50 per share on the convertible preferred stock payable March 1, 1930, to stockholders of record February 13, 1930.

Directors also declared the regular quarterly dividends of \$1.50 per share on both the Series "A" and Series "B" preference stock, both payable March 1, to stockholders of record February 13.



### Priest River Mill May Go Ahead

Reports that the Pacific States Pulp & Paper Co. had made tentative arrangements for \$2,500,000 of Eastern capital to assure immediate construction of a 100-ton sulphate pulp mill at Priest River, Idaho, were confirmed to PACIFIC PULP & PAPER INDUSTRY by A. T. Peterson, executive vice-president of the pulp company.

Mr. Peterson added that L. E. Van Winkle, secretary-treasurer, has been in Chicago and New York since before Christmas negotiating with a number of brokers, bankers and machinery houses. Affairs have now progressed to a point where it will be necessary for Mr. Peterson to go East also.

A prospectus recently issued by the company covers an offering of 10,000 shares of class "A" prior preference 7% cumulative common stock with a par value of \$50 per share. This lot of 10,000 shares, with 30,000 class "B" shares are being offered at \$53 per unit of one "A" share and three "B" shares. The company is incorporated in Delaware and has an authorized capital of 60,000 shares class "A" and 350,000 shares class "B".

The prospectus states a 20-acre site has been selected in Priest River and that the company has negotiated for the purchase of sawmill properties of Charles W. Beardmore, adjacent to the site. The tract, situated on the shores of the Pend Oreille River, is crossed by the main line of the Great Northern, and has accessible the timber in two national forests through easy rafting. The company owns its own lime deposits.

"The project has been investigated and recommended by competent pulp and paper engineers among whom are C. C. Hockley, Portland, Oregon; B. T. McBain, Portland, Oregon; and O'Keefe-Orbison Engineering & Construction Company of Appleton, Wisconsin," it is stated in the prospectus.

A total annual income of \$526,444.80 is forecast, divided \$428,400 for pulp mill operation and \$98,044.80 for sawmill operation.

The prospectus places the cost of pulp mill construction at \$1,300,000.

Further, "the complete plans for the financing of the company have been formulated, analyzed and presented by the Fiscal Engineering Co. of Chicago . . . \$2,500,000 will be financed in Chicago and New York and approximately \$500,000 of capital is to be raised in the West. Of the \$500,000 allotted to Western financing approximately \$325,000 is to be paid in the form of proposed exchanges for properties to be acquired and the balance is to be accomplished by public subscription."

The company has an option on a sodium sulphate deposit in Okanogan county, Washington, from which it will obtain salt cake.

Operation of the plant will be under the direct supervision of E. A. Weber, operating vice-president and director.

The company's officers and directors not previously named are: C. W. Beardmore, president and director, sawmill, lumber and logging executive of Priest River. George E. O'Bryan, director, attorney, Olympia, Wash.

### McMaster On Eastern Trip

A. E. McMaster, general manager of the Powell River Co., has left for a three weeks' business trip to the east. He will visit Minneapolis, New York and Montreal. Advance reports from Montreal indicated that he would be honored with the vice-presidency of the Canadian Pulp & Paper Manufacturers Association, although he will be unable to attend the sessions.

### Camas Work Delayed by Cold Weather

The unprecedented cold snap which seemed to center over the Columbia River during January invoked some handicap for the construction engaged in the extensive remodeling of Crown Willamette Paper Company's mill at Camas, Wash., but progress has been good nevertheless.

The converting plant, which is now completed, will employ approximately 100 people, when the machinery is all installed and is running at full capacity. At present several toilet paper machines are being operated and crews are being broken in for these and other machines which are to follow. The paper towel machines are to be installed in the converting plant soon.

Work on the other buildings and the installation of machinery is going ahead rapidly. The new No. 3 paper machine is being erected and is expected to be in operation in March. Another new machine will be in operation a month or two later, it is expected. Rebuilding work on several of the old machines is going ahead at the present time.

The new 100-ton bleacher is nearing completion and the installation of machinery is expected to be finished by April, when the new unit is to go into operation. The new boiler plant is to be ready at about the same time.

The new chipper plant is completed and work on the rebuilding of the wood mill is well under way. The new conveyor system, running over the kraft mill, is about finished.

The building contractors and V. D. Simons, engineers, are now employing approximately 8200 men in the construction work and erection of new machinery. These forces will be reduced as various units are completed.

Approximately 200 more employees will be added to the payroll of the Camas plant when all new units are completed and in production. The additional employees will be added gradually as the various new units are completed and production is stepped up.

### Willard Hawley, Jr., in Mexico

Mr. and Mrs. Willard Hawley, Jr., left Portland February 1, for a six weeks' trip through Mexico.

### Townsite Management and Profits

(Continued from Page 35)

ly constructed by cut and fill just above the dam where the land was anything but smooth or level. Then there are six tennis courts with wooden floors which a large tennis club membership keeps busy. Three badminton courts in the dance hall provide exercise in the winter months. And then there is that more recent acquisition, a fine, tile-lined swimming pool 25x60 feet, enclosed in a steam heated building, equipped with modern filtering plant, showers and other accessories.

Still, if a fellow doesn't care so much for these more or less man-made sports he can go in for boating on salt or fresh water, or he can take rod or gun and hike into the hills, to streams and lakes, to mountain crags and wooded ravines, there to seek anything from trout and ducks to grizzly bear and mountain goat.

It is in the company-owned town that the domestic troubles often become discouragingly intertwined with the industrial. But at Ocean Falls they long ago recognized this tendency and set out to make the place a pleasant place to live, firmly convinced that intelligent handling of the human factor would show up to advantage on the annual financial statement.



# T·R·A·D·E - T·A·L·K

Devoted to the Paper Trade of the Western States

## Getting Ready For Del Monte

Making the thirteenth annual meeting, the Pacific States Paper Trade Association will convene at the Hotel Del Monte, Del Monte, California Thursday, May 15 to Saturday, May 17, inclusive.

The business session opens at 1:30 P. M. Thursday and will be concluded Saturday morning. The merchants' and manufacturers' joint meeting will be held Wednesday evening, May 14, at 8 o'clock, and the annual dinner will be held Friday evening.

Members and affiliated associations are being requested to forward to George I. Thomas, chairman of the program committee, all subjects which they feel should receive the attention of the convention together with a paper thereon expressing some viewpoint and the reason for bringing up the particular subject.

The program committee is composed of the following: George I. Tompkins, Sierra Paper Co., Los Angeles, chairman; H. S. Bonestell, Bonestell & Co., San Francisco; L. A. Colton, Zellerbach Paper Co., San Francisco; and B. G. Ewing, B. G. Ewing Paper Co., Spokane. The duties of this committee are to gather all the subjects to come before the meeting and arrange for their proper discussion.

At the same time the more serious business of the convention is going on, the coast manufacturers will hold their twelfth annual golf tournament, in which all members of the Pacific States Paper Trade Association are invited to participate. The qualifying round will be played Tuesday morning, May 13th, and the tournament concluded on Saturday. Their annual golf dinner will be given Saturday. As to the ladies, it is promised that adequate arrangements have been made for their amusement and recreation.

## Twelfth Annual Convention

# PACIFIC STATES PAPER TRADE ASSOCIATION

DEL MONTE - May 15, 16, 17

## Market for Utility Tissues in Costa Rica

The United States is the leading supplier of the toilet paper and paper towels imported into Costa Rica, having furnished in 1927, 80,155 pounds out of a total importation of 80,225 pounds. No information is yet available on 1928 imports.

## JAMES IGSTADTER,

now assistant manager of  
Zellerbach Paper Co. in  
San Francisco



## Igstadter Pegs A New Notch

Thirty years with the same firm—such is the record of James Igstadter recently appointed assistant manager of the San Francisco division of the Zellerbach Paper Co.

"Just at the turn of the century," said Mr. Igstadter with a smile, "I decided to give up my newspaper route and go into the production end of the paper business. Yes, I certainly started at the bottom, but the paper business still seems as interesting to me now as it did then."

In addition to his new duties, Mr. Igstadter will continue as director of sales. His long association with the company, and his thoro knowledge of the paper business, fully qualify him for his new duties.

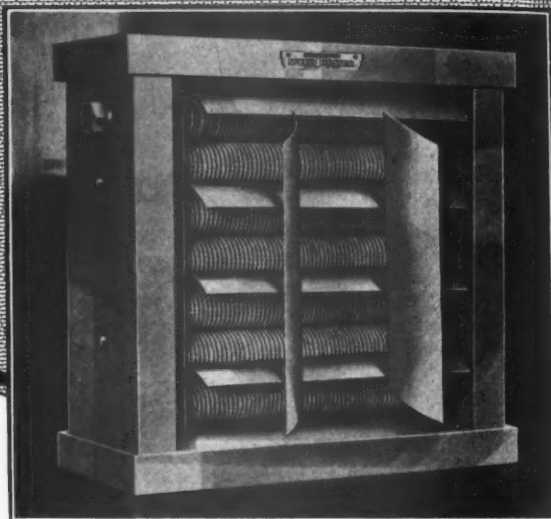
## Denver Paper Trade Boosted by Wyoming Men

When Denver paper jobbers entertained representatives of the Wyoming Press Association recently they heard a very pleasing note sounded when L. L. Newton, secretary of the association, told them that Denver was the logical source of supply for the Wyoming territory because of the faster service, the greater variety and the greater quantities of stock kept always on hand. The Denver men had always seemed to believe that but it seemed good to have an outsider tell them so.

## Carter, Rice and Carpenter Annual Meeting

The annual meeting of the officers and stockholders of the Carter, Rice & Carpenter Paper Co., Denver, was held in the company office on January 29. Officers from a distance who attended were: James A. Carpenter, president, Kansas City; Hubert L. Carter, vice-president, Boston; and I. W. Carpenter of Omaha. Other officers are: J. Harry Custance, general manager; H. A. Thayer, assistant general manager; Phil H. Knowlton, sales manager; and James A. Brady, manager wrapping department. The meeting was topped off with a dinner at the Cosmopolitan Hotel in the evening.

**ROSS**  
**Unit**  
**Heaters**  
*of all*  
*types*



*....embodying all  
the quality that is  
characteristic of  
all ROSS apparatus  
—large and small*

*Trim Conveying  
Calender Cooling  
Motor Cooling  
Locker Room  
Ventilating  
Filters—Hoods  
Fans—Blowers*

The new Ross Unit Heater, designed in various types, is just one indication of the extent of Ross Heating, Ventilating and Drying service to the pulp and paper industry. Whether the need is for complete machine room heating or merely to correct a sectional problem—there is dependable ROSS equipment to efficiently and economically meet the requirements.

FOR even the smallest piece of equipment in connection with heating, ventilating and drying — the specialized Ross experience, knowledge and manufacturing facilities can be utilized to advantage with positive savings in time, trouble and expense. Let us figure on your small equipment.

**J. O. ROSS ENGINEERING CORPORATION**

208 W. Washington Street  
CHICAGO

Main Office—122 East 42nd Street  
NEW YORK

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ROSS ENGINEERING OF CANADA, LIMITED  
NEW BIRKS BLDG., MONTREAL

**ROSS SYSTEMS**  
• HEATING—VENTILATING—DRYING •

When writing to J. O. ROSS ENGR. CORP. please mention PACIFIC PULP & PAPER INDUSTRY

### Crown Zellerbach Compares Admirably with Eastern Firms

It is interesting to note that Crown Zellerbach Corp. is considered by one of the large Eastern statistical organizations to be a "radical speculation" and yet on the other hand the same service contends that International Paper, Abitibi, Container Corp. and others are favorable as long pull holdings.

On the contrary, Crown Zellerbach, during the past two years has shown a growth in earnings and is earning its dividend twice over, although the paper industry has been through a terrific depression and has severely embarrassed many of the corporations to the extent where some have had to pass their dividends.

Crown earned \$1.55 per share in 1927 and \$1.72 in 1928. International Paper earned \$2.03 per share in 1927 and had a deficit of \$2.31 per share in 1928; Price Bros. earnings dropped from \$2.87 per share in 1927 to \$2.15 per share in 1928; Kimberly Clark net dropped from \$5.09 per share in 1927 to \$4.31 per share in 1928; Frazer Co., Ltd., profits dropped from \$1.61 per share in 1927 to \$1.04 per share in 1928, and Albany Wrapping Paper net dropped from 70 cents in 1927 to 61 cents in 1928.

In spite of this, the Eastern organization asserts that: "Abitibi is one of the strongest companies in the group and a low cost producer. Common stock is adequately priced on an earning basis at 37."

"Evidence indicates that International Paper has definitely turned the corner and should next year earn its preferred dividend by a fair margin . . . entirely satisfactory earnings are in prospect for 1932. . . ."

"At current quotations (50) Kimberly Clark is selling for approximately ten times estimated 1929 earnings."

"Price Bros. has demonstrated an ability to operate profitably even in periods of severe depression in the paper industry such as that evidenced in the past two years."

The only Pacific Coast company in the group, Crown Zellerbach, received the following notice:

"As a radical speculation, the common stock currently quoted around 18 is an attractive commitment for long term holding and offers a fair return paying \$1 per annum."

In view of the fact that Eastern statisticians and organizations have recently had occasion to refer slightly to other high grade Western stocks, it is quite obvious that the Easterner is far less familiar with the United States than the Westerner, for the average Westerner has demonstrated a fair familiarity with the East and things Eastern.

Suffice it to say that Crown Zellerbach is the Nation's second largest paper manufacturer in the United States with total assets of more than \$1,000,000. The corporation is earning at the rate of \$2.26 per share, or considerably more than double dividend requirements this fiscal year. It has a reserve of 10,000,000,000 feet of timber, power sites, power plants, retail distribution, allied corporations in other industries. Crown Zellerbach has accomplished these splendid results in spite of the fact that the company was consolidated less than two years ago and with full benefits accruing from the merger still to be realized.

### Pass 'em Around, Elmer

Elmer Herb, sales manager of the Pacific Coast Paper Mills, Bellingham, became a proud papa in January. It's his first, and a boy, too.

### What Will Weyerhaeuser Do?

One of the most active bits of speculation afforded the Pacific Coast in a long time may be summed up in, "What will Weyerhaeuser do?"

The Weyerhaeuser Timber Co. last summer completed at Longview, Wash., and began production in one of the world's largest sawmills. The mill has four units, equipped to cut large and small Douglas fir logs, Western hemlock and cedar. The company has extensive timber holds in Southwest Washington which it feeds to this huge new mill through its own logging operations. Without question Weyerhaeuser is one of the most powerful timber operators in the country.

Since the start of the big sawmill there has been much speculation on what Weyerhaeuser would do with the sawmill waste, but nothing enlightening has been forthcoming from the management. It is known, however, that the company is not tying up its waste with any long-time contracts.

Present rumors really started when the Weyerhaeuser interests employed William Einzig a few weeks ago to conduct some studies for them. What heightens the interest is that Mr. Einzig has for the last three or more years been the purchasing agent for several new mills constructed by the Zellerbach and affiliated interests at Shelton, Port Angeles, Hoquiam and Port Townsend, Wash. Mr. Einzig had had his office at 719 White Building, Seattle, from where the various operations named above were directed.

Mr. Einzig severed his connection with the White building office as 1929 drew to a close and was shortly after employed by the Weyerhaeuser interests and is now making his headquarters in that company's Tacoma office.

Meanwhile F. R. Titcomb, general manager of the Weyerhaeuser Timber Co., maintains that "we are interested only in logs and lumber" and denies that the company contemplates building a pulp mill. And further than that he declines to enter into discussion.

### Olympic Forest Products Making Progress

While some machinery has already arrived for the new 150-ton pulp mill being built by the Olympic Forest Products Co. at Port Angeles, Wash., the main shipments are not expected until the latter part of February.

Digester construction is going forward.

In the sawmill unit machinery is being installed and there is much activity in the old spruce mill which has seen many idle years since the government built it for war emergencies.

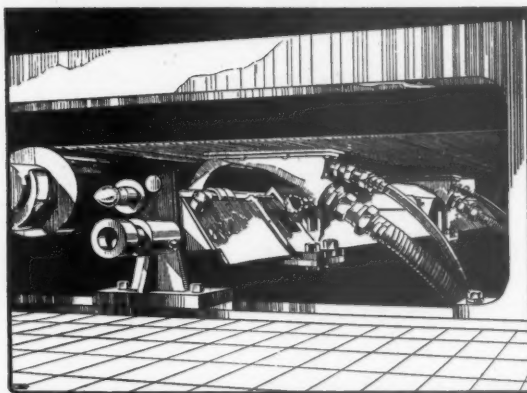
### Technical Control

(Continued from Page 37)

of three to five years. A contract has not been the rule in the past on the Coast, but is customary in the East. A contract is a good thing for both employer and employe, as it emphasizes the importance of the technical engagement and makes clear to both parties to the contract, their mutual obligations.

A word of caution is advisable. When an industry is changing from the control of the artist or the practical man to the control of the technically trained man, much grief can, and usually does, result for all concerned. It is, however, unnecessary, and the inevitable transition can be brought about with profit to all. This transitional phase of technical control in industry will be discussed in our fourth and final article of this series.





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## Are you completely equipped with VICKERY FELT CONDITIONERS

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Two out of every three Vickery Felt Conditioners that we make go into mills that already have one or more in operation. They have tried the Vickery Felt Conditioner, have found it so profitable that they feel they cannot afford to have less than complete equipment.

How about your mill?

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**BIRD MACHINE  
COMPANY**  
South Walpole ♦ Massachusetts

**BIRD**  
MACHINERY

When writing BIRD MACHINE Co., please mention PACIFIC PULP AND PAPER INDUSTRY



### Pacific Mills Selects Vancouver Site

Pacific Mills, Ltd., subsidiary of the Crown Zellerbach Corporation, has selected a site for its converting plant in Vancouver and has taken a twenty-one-year lease on waterfront property from the Harbor Commission. The strip of land to be utilized, lies between the wharves of the B. C. Sugar Refinery and the Kingsley Navigation Co.

Erection of the new plant, to operate in conjunction with the Ocean Falls mill of Pacific Mills, Ltd., will call for the investment of between \$100,000 and \$150,000, according to F. N. Youngman, vice-president.

The company is already engaged in a program of expansion at Ocean Falls representing a total cost of approximately \$1,500,000 in connection with replacement of the groundwood mill, screening and deckering equipment, addition of five three-pocket grinders, new chemical pulp screen room and equipment, additional beating capacity and a modern high pressure steam unit consisting of boiler and turbo-generator.

Details of the equipment of the converting plant have not yet been decided upon, according to Mr. Youngman, but it is expected to have it in operation by May 1. About 100 persons will be employed. The chief product of the company will be waxed coverings, wrappers, fruit wraps for the Okanogan apple crop, towels, napkins and various other specialties.

The building will be of two stories, 260x120 feet. The lower floor will be used for the factory and the upper for the company's city offices, which will be transferred from the Standard Bank Building. Construction will be commenced by the end of February and filling at the site for foundations will proceed immediately.

Six thousand tons of paper will be converted annually at the new plant. Some of the machinery will be brought down from Ocean Falls, where the company has been carrying out some of its converting processes on a small scale.

### B. C. Power Plans In Abeyance

The B. C. Pulp & Paper Co. will probably decide during the next few weeks whether or not to proceed with the proposed \$1,000,000 power expansion program for Port Alice. This project has been discussed for several years and every spring it is revived, but the present uncertain condition of the pulp market has delayed the company in making a decision.

### Hope for Rice Straw Mill

Construction on the proposed 25-ton rice straw paper mill for the Pacific Coast Pulp & Paper Corp., at Richvale, Calif., will be resumed about March 1, according to P. Swan, Portland, who returned early this month from Sacramento, where he conferred with C. A. Kieren, in charge of construction.

"Preliminary work was started on the proposed plant last year," stated Mr. Swan. "Because of the failure of some of the promoters to carry out an agreement entered into, we were forced to abandon our program. Meanwhile, a better financing plan has been worked out, local capital having been offered, and we are now able to go ahead with building activities."

No change in the original plan to use rice straw for paper manufacture has been made, Mr. Swan said.



JOSEPH HEDIN,

now with Crown  
Zellerbach

### Hedin Joins Crown Zellerbach

Joseph Hedin, who recently resigned as general superintendent of Union Bag & Paper Power Corporation's Tacoma mill, is now with the Crown Zellerbach Corporation. Temporarily he has quarters in the corporation's Portland offices, but later it is expected he will be located at the San Francisco headquarters when the corporation's new office building is ready. Mr. Hedin will act in an engineering advisory capacity for mills in Crown Zellerbach group and affiliated interests.

### New Grays Harbor Logging Road

Work on the 17-mile railroad into the North River valley, being built into the valley from Preacher's Slough on the Chehalis, by the Saginaw Timber company, has already started. Clearing of the right-of-way is under way now and the 17 miles of road will be completed in less than six months, under the contract, the road running through some of the most rugged country in Southwest Washington. Several trestles are being built the largest being a 1,500-foot bridge over Vesta creek.

The road when finished will handle some 100 cars per day to carry approximately 650,000 feet of timber daily to the Preacher's slough rail junction.

Much of the timber to be tapped is pulp wood.

### Zetex Sales Are Brisk

L. J. Arms of San Francisco, who holds among other titles, Western sales manager, Carthage division, National Paper Products Co., and manager, Western division, the Sanitary Products Corp., made a tour of the Western states in late January and early February. He went as far East as Denver, Colorado. He was accompanied on a part of the trip by L. A. Love, president of the Zetex corporation.

The Zetex corporation is manufacturing a recently developed self-disposing toilet seat cover under the sales direction of Mr. Arms. The product is finding an unusually ready acceptance in the trade and is regarded by Mr. Arms as one of the most significant developments in sanitary paper products. It is being marketed in two types of dispensing cabinets and in small retail packages.

Tom G. Taylor, well known for his activities in financing a number of pulp and paper mills in the Pacific Northwest, has returned from Los Angeles where he has been for about a year and is again in the Pacific Building, Portland.



Section 8B

SPECIFICATIONS  
ALL MACHINERY  
TO BE

**TIMKEN BEARING  
EQUIPPED**

APPROVED BY *Industry*

## Approved By The Paper Industry

America is sweeping aside obsolete methods and machines.

Machine buyers and builders have found a modern symbol of protection for production, freedom from friction, extended machine life, preserved alignment, reduced maintenance costs... they have found it in "Timken Bearing Equipped."

To the paper industry it means that in paper machines, paper mill drives, jordan engines, fourdriniers, chip screens, shredders, electric motors

and other equipment, all loads, whether all radial, all thrust or a combination of both, are capably carried by Timken.

Years of proof have brought recognition to this exclusive combination: Timken tapered construction, Timken *POSITIVELY ALIGNED ROLLS* and Timken-made steel. So "Timken Bearing Equipped" sweeps on as the universal *stamp of approval* in a national program of modernization.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

# TIMKEN *Tapered Roller* BEARINGS

When writing THE TIMKEN ROLLER BEARING CO., please mention PACIFIC PULP AND PAPER INDUSTRY.

# T·A·P·P·I

Pacific Coast Section

## Spring Meeting PACIFIC T·A·P·P·I

Longview, Saturday, April 5

The spring meeting of the Pacific Section of the Technical Association of the Pulp and Paper Industry will be held at Longview, Saturday, April 5. After a general session in the morning a business meeting of the session will be held. In the afternoon technical papers will be read. The evening will be given over to dinner and social entertainment.

A general invitation is extended to the men of the industry to attend and participate in the meeting which promises to be of much interest. Also, a cordial invitation is extended to the ladies to visit Longview. The committee is making preparations for their entertainment. Weather permitting, golf on Sunday may add to the pleasure of those so inclined.

R. S. Wertheimer, Chairman.  
H. K. Benson, Secretary.

Plans of the program committee of the Pacific Coast Section of T. A. P. P. I. call for excursions into other industries when the organization gets together for its spring meeting at Longview in April.

This is not to say that the technical men will undertake some junket trips and troop behind plant guides to explore the physical wheels of cement plants, sugar refineries, mines, textile mills, and what not. Rather, the program committee aims at securing some able speakers from other industries and the excursions will be mental and auditory in character, these invited speakers discussing problems within their own particular field.

It is even possible that papers confined strictly to the limits of the pulp and paper industry and its problems will be a minor element. The T. A. P. P. I. Section executives and program committeemen feel that there is sometimes a tendency for the industry to become too wrapped up in its own affairs, the meanwhile entirely to lose sight of what is being achieved in other industries which might be at once applicable and important to the pulp and paper manufacturers.

As a specific example of what can be learned by a little journeying outside of the industry, and to further illustrate by example just what the program committee has in mind, a case is cited of a man coming into the pulp and paper field with no knowledge of it but with a good understanding of metallurgy. Bringing a fresh viewpoint to pulp and paper, he was able to contribute

a wealth of data from his experiences in the totally different field of metallurgy.

Another example of borrowing methods from other industries may be had in the rod mill, borrowed from the mining industry; certain types of sizing screens, also borrowed from the mining industry, and pulp dryers, borrowed from the textile industry.

At the spring meeting, the technical men will put their tools aside for the day and lift their heads above the low wall surrounding the pulp and paper industry. It is strongly believed that many of the basic problems with which the pulp and paper technologists are still struggling may be found already to have been solved by other industries. If some of these problems have been solved, T. A. P. P. I. hopes to ferret them out.

### Pacific Coast Mill Association Progressing

While there has been little news about the proposed association of Pacific Coast mills of late, there is nevertheless definite progress. The invitations to the mills to join in the proposed association have met a good response and practically every mill has by now given definite assurance that it will come in, the committee reports.

Most of the committee members have been doing a lot of traveling of late and it has therefore been difficult to have a meeting. However, indications are that a definite program of organization with suggested rules and bylaws will be completed prior to, and be presented at, the annual meeting of the Pacific Coast Trade Association at Del Monte in May.

### Dr. Brooks Is Dead

Dr. Dwight F. Brooks, president and founder of the Powell River Co., and one of the best known figures in the pulp and paper and lumber industries of the West, died at Palm Springs, Calif., January 21, after a brief illness.

Dr. Brooks was one of the first to recognize the possibilities of large scale pulp and paper development in the Pacific Northwest. It was largely due to his vision and progressive policies that the Powell River Co. grew to become the largest newsprint producer on the coast and the location of a model town of some 5,000 population.

### A. D. Wood Visits Coast

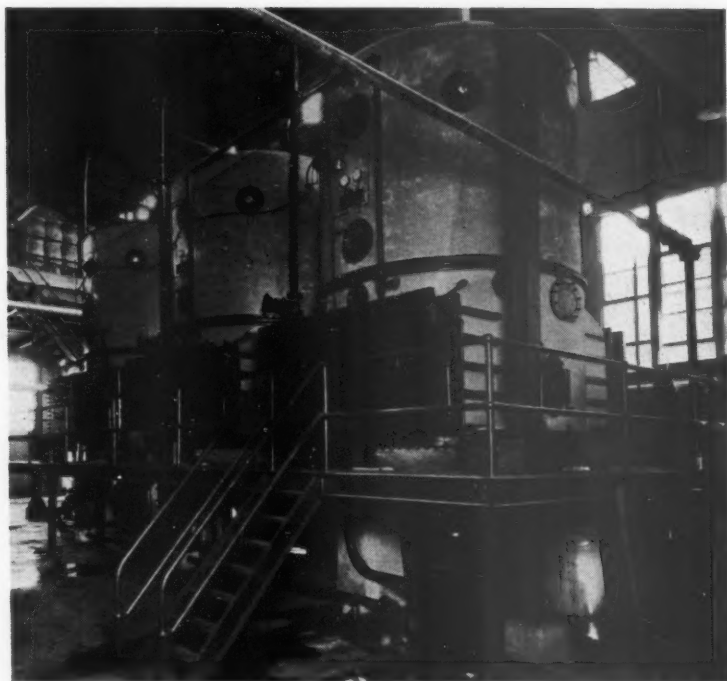
A. D. Wood, for many years sulphite superintendent and later assistant general operating superintendent of the Champion Fibre Co. plant at Canton, North Carolina, is visiting mills in the Pacific Northwest. Mr. Wood is well known to the trade, having for many years been an active member of the TAPPI. He is the inventor of the A. D. Wood machines, manufactured by the Glens Falls Machine Works of Glens Falls, N. Y., and the Ideal chip breaker, manufactured by Ryther & Pringle of Carthage, N. Y.

While on a visit to the West Coast two years ago, Mr. Wood was taken seriously ill at Salem, Oregon, and was unable to return to North Carolina until last fall. During an extended leave of absence from his regular work he is making a special trip for the Glens Falls Machine Works in the interests of the Wood machines and other equipment made by that company.

During his stay in the West Mr. Wood is making his headquarters with his son, Edward P. Wood, Tacoma, Washington. His son is chemical engineer at the Union Bag & Paper Power Co. plant in that city.



# ZAREMBA



ST. HELENS PULP & PAPER COMPANY  
ST. HELENS, OREGON

## A Survey of the Sulphate and Soda Pulp Mills in the Pacific Northwest...

shows a most decided preference for Zarembo Evaporators. With six multiple effect evaporators in five pulp mills, Zarembo can assert, as no other manufacturer of evaporators can, that it has such equipment in more than one mill.

With over sixty multiple effect evaporators

in the United States and Canada concentrating Soda and Sulphate Black Liquor and Sulphite Waste, and with eight more now in course of construction or erection it is evident that this preference extends to the entire industry. This is easy to explain, but we suggest that you "Ask the man who operates one".

*Single Effect, Multiple Effect and Recompression Evaporators*



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*When writing ZAREMBO Co., please mention PACIFIC PULP & PAPER INDUSTRY*



# S · A · F · E · T · Y FIRST—LAST and ALWAYS

The Best Safety Device Known Is a Careful Man

## Safety Meeting At Powell River

In the interest of SAFETY FIRST the Powell River Co. Ltd., extended a call for a safety meeting at Powell River, B. C., on Wednesday, February 12. A general invitation to Pacific Coast mills was extended by Robert H. Scanlon, assistant mill manager, who was recently appointed a Regional Director of the National Safety Council for the pulp and paper industry.

Mr. Scanlon acted as chairman of the safety conference held under the council's auspices at Powell River February 12. Invitations to attend the conference were sent to all the pulp and paper mills on the coast and to various safety organizations.

The visitors were guests of the Powell River Co. during their stay at Powell River and arrangements had been made for a program of entertainment. In the afternoon a special meeting of the delegates was held in Dwight Hall, named in honor of the late Dr. Dwight Brooks, president of the company. Nearly 100 guests, including foremen and plant safety committees were present.

Last summer at the annual meeting of the National Safety Council in Chicago Mr. Scanlon was appointed regional director for the west. At the western conference he stressed the advantages of affiliation with the council and invited discussion from the delegates on the safety problem of their various organizations.

## The Minor Accidents

The question is raised, "If, in order to carry on a contest, it is necessary to neglect the tiny injuries just to get a nice, clean-looking statistical record, is not the true purpose of the cause of SAFETY FIRST being defeated at the start?"

A man returning to useful employment, consistent with his injury and with the consent of the physician is benefited both financially and physically, to say nothing of his better mental state.

At home a man is "on his own" and will not idle about nor keep his injured finger dry, clean and warm. Rather it will be wrapped around a monkey wrench, adjusting the valve clearance on the family bus or in a can of paint.

A man in one mill was denied the privilege of scaling wood in the grinder room. He greeted the physician from the half-painted side of a house and included a shed full of freshly-dug potatoes in his account of post-accident accomplishment!

Such a case in the plant would be reporting to the First Aid department about four times daily, would see the physician promptly and regularly, would have to pass the scrutiny of foreman and would have to comply with the most explicit demands of the doctor relative to frequent dressings, warmth, dryness and limitations of occupation. To say nothing of full pay and contentedness coming from labor, also self-satisfaction in having done nothing to hurt the mill status.

STATEMENT OF ACCIDENT EXPERIENCE—DECEMBER, 1929  
Mills in State of Washington

COMPANY—	Hours Worked	Total Accidents	Frequency Rate	Days Lost	Severity Rate	Standing
Pacific Straw Paper & Board Co.	17,296	0	0	0	0	1
Inland Empire Paper Co.	61,891	1	16.1	16	.259	2
Crown Willamette Paper Co.	305,681	5	16.4	141	.461	3
Everett Pulp & Paper Co.	78,920	2	25.3	69	.874	4
Grays Harbor Pulp & Paper Co.	84,350	3	35.6	65	.771	5
Puget Sound Pulp & Timber Co., Fidalgo Division	25,392	1	39.4	17	.669	6
National Paper Products Co.	87,491	4	45.7	44	.503	7
Rainier Pulp & Paper Co.	64,694	3	46.4	48	.742	8
Washington Pulp & Paper Corp.	104,496	5	47.9	52	.497	9
Fibreboard Products Inc., Sumner	20,696	1	48.3	17	.821	10
Longview Fibre Co.	71,687	4	55.8	139	1.939	11
Tumwater Paper Mills	12,120	1	82.5	8	.660	12
Cascade Paper Co.	46,838	4	85.4	49	1.046	13
Fibreboard Products Inc., Port Angeles	37,112	4	107.8	26	.701	14
Puget Sound Pulp & Timber Co., San Juan Division	30,720	6	195.3	34	1.106	15

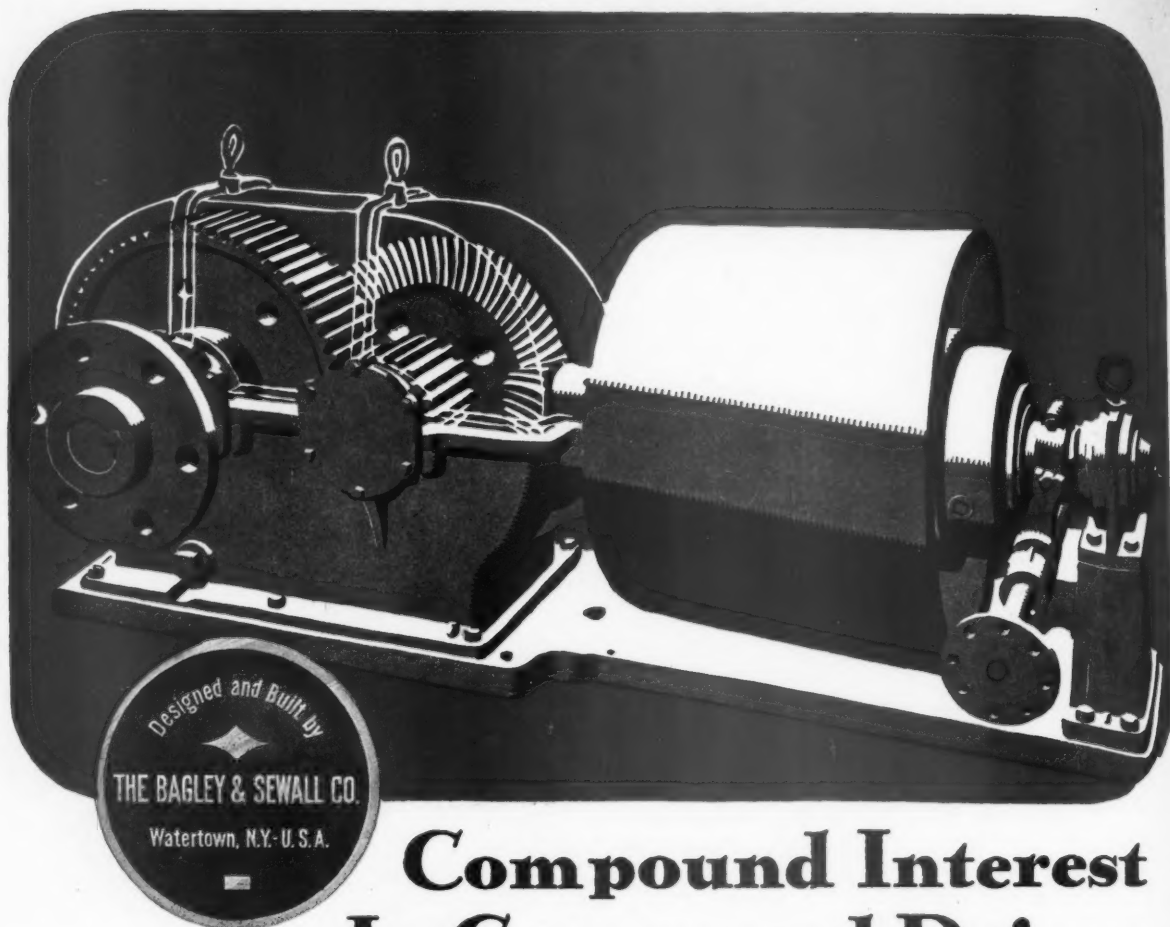
The following mills not reporting: Columbia River Paper Co., Pacific Coast Paper Mills.

## Receiver For Paper Company Discharged

The new year found the Colorado Paper Products Co., successor to the Colorado Pulp & Paper Co., doing business without the aid of a receiver. On December 30, District Judge S. W. Johnson, sitting at Brighton, Colorado, ordered the twenty-eight-month receivership terminated. In the decree the judge allowed \$30,950 in costs for the receivership including attorneys' fees. The receiver, G. W. Beck, was ordered not to file a final report until the distribution of some \$10,000 still in dispute among stockholders, bondholders and creditors had been made.

## Colorado Press Association Holds Annual Meeting

The annual meeting of the Colorado Press Association was held in Denver at the Albany Hotel on January 16 and 17. The sessions were well attended. More than 200 editors were present from all parts of the state. Entertainment by various Denver organizations filled in the time not consumed in the discussion of problems pertinent to editors and publishers. Principal among these was the luncheon served at the Denver Athletic Club on the opening day by the paper supply houses of the city aided by the printers supply houses.



## Compound Interest In Compound Drives

**Bagley & Sewall Compound Spiral Bevel Gear "Slow Motion" Drives pay big interest returns...dividends in more profitable production...freedom from excessive broke...more uniform sheet formation...longer life for rolls, wires and felts. For these are drives that meet every ideal of modern efficiency...pinions, bevel and spur gears precisely cut from solid metal...enclosed oil bath giving full, adequate lubrication...remarkable freedom from vibration and noise...complete easy control through magnetic or multiple disc clutches...and an almost unbelievable compactness that keeps the back aisle open and accessible. In any desired gear ratio, with an assurance of smooth operation that is a revelation.**

*NEW — but already endorsed by practical superintendents*

# *The* Bagley & Sewall Co.

Watertown, N. Y.

**New Types  
New Models  
New Machines**

## EQUIPMENT

Manufacturers of, and dealers in, equipment used by pulp and paper mills, board manufacturers, converting plants, paper merchants, or any other branch of the industry may make their announcements in this department.

**New Dealers  
New Branches  
Appointments**

### Paper Machine Builders Expand Interests

The Paper and Textile Machinery Co. of Sandusky, Ohio, developed by Mr. W. H. Millspaugh for the manufacture of centrifugally cast bronze shells and building of suction rolls under patents owned by the company, has been purchased by a group of interests which very largely represent the paper machine builders of the United States.

Furthermore, Mr. Millspaugh has developed certain ideas relative to paper making whereby the entire wet end is simplified by means of the use of suction rolls for the forming and pressing of the sheet. The patents covering these ideas also belong to the company.

In the future the machine builders will not only have within their control the suction roll equipment which forms an important part of their product, but will also be in position to utilize the new ideas applying to the wet end of the paper machine.

By reason of this new and widespread ownership it is hoped to avoid any restraint or handicap in the full development of the Millspaugh ideas.

By this arrangement the paper mills will be assured of opportunity to secure the design and construction of a machine best suited to their requirements from any machine builder which they may prefer and apparently there can be no possibility of any unfair advantage to any individual or particular group of machine builders.

### Ocean Falls To Burn Oil

Pacific Mills, Ltd., is turning away from coal and is said to have contracted for large supplies of fuel oil, which it will use extensively hereafter together with hogged fuel. The move brings up an interesting trend in steam practice in Pacific Coast paper mills.

The company's mill at Ocean Falls, British Columbia, is less fortunately situated for securing hogged fuel from sources outside of its own woodroom operations. Ocean Falls is considerably further from the big saw-mill in and about Vancouver, where much of the hogged fuel originates, altho there are a few big lumber mills, of course, on the upper reaches of Vancouver Island.

Oil, of course, has a number of advantages as a fuel, not least of which is the ease with which it may be handled from ship to storage and storage to boilers. It has other merits in cleanliness and abundance and dependability of supply. The recent unprecedented cold snap has served also to set up some entirely new values with respect to hogged fuel.

### Seattle Zellerbach Office Has New Buyer

A. W. Akers is now handling the purchases for the Zellerbach and affiliated mills which are directed from the office at 719 White Building, Seattle. Mr. Akers came from San Francisco headquarters of Zellerbach. He succeeds William Einzig, recently resigned.

### Western Gear Gets Big Order

The Western Gear Works, of Seattle, Washington, is manufacturing practically all of the speed reducers that will be used in the new plant of the Olympic Forest Products Co., at Port Angeles, Wash.

The contract includes the speed reducers to be used in the saw mill and chipping room as well as a number of standard speed reducers to be used throughout the pulp mill. It also includes a number of special right angle drives which the Western Gear Works have developed for driving agitators.

"The companies associated with the Olympic Forest Products Co. have been using Western Gear speed reducers for a number of years," Thomas J. Bannan, of the Western Gear Works, remarks, "and it is considered natural that the order for the large quantity to be used at the present mill would be placed with the same company in recognition of the service their equipment has been giving."

### Falk Announces New Right Angle Drive

The Falk Corporation of Milwaukee has brought out a line of right angle drive speed reducers to supplement its parallel shaft drives. This new series has been developed to take care of a growing demand for right angle drives on certain types of installations, and includes both horizontal and vertical shafts.

One feature of the Falk right angle drive is a combination of single helical and spiral bevel gears. It is pointed out that single helical gears for the final reduction are easier to assemble than herringbone gears and that their efficiency is practically the same. An accurately cut single helical gear in combination with a high grade spiral bevel makes a quiet, cool running reducer which has an initial efficiency of well over 95 per cent.

### Bingham Gets Big Pump Order

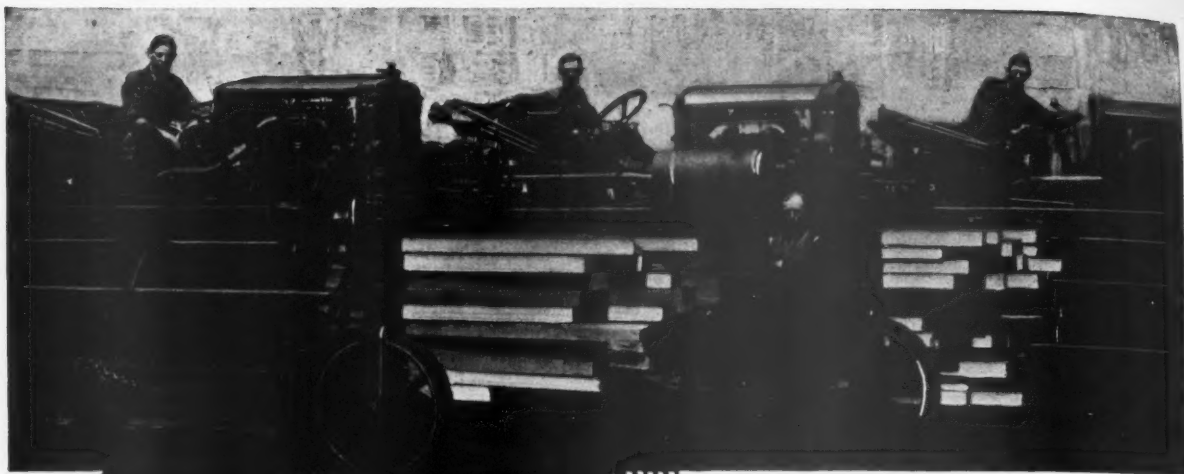
The Bingham Pump Co. of Portland, Oregon, has received an order from the Longview Fibre Co., Longview, Wash., for several large white water pumps with capacities ranging from 3,000,000 to 12,000,000 gallons a day. It is expected that the entire order will be completed and installed during January. Recent installations made by this company include sulphate liquor pumps in the Camas mill of the Crown Willamette Paper Co., also heavy duty pumps in the Spaulding Pulp & Paper Company's mill at Newberg, Oregon.

### Link-Belt Stocks Complete

In accordance with the simplification program being carried out by the Department of Commerce, the Link-Belt Co. has inaugurated a plan for carrying complete roller chain drives in stock at various distribution points throughout the country.

This plan will obviate delays in installing and repairing equipment, and the service is expected to meet with the same marked success that accompanied the marketing of silent chain drives in the same way.



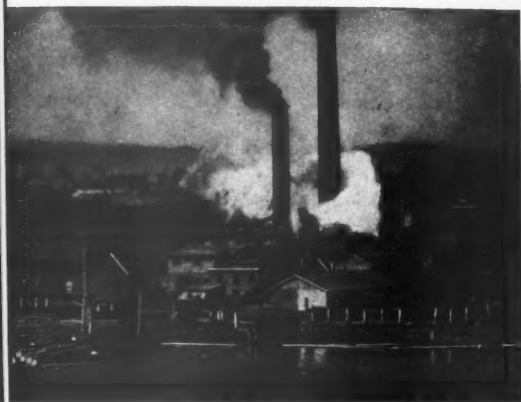


*Ross Carriers, at Cameron Lumber Company, Victoria, B. C., all use Shell Motor Oil "D"*



*A. J. Beecroft, Mill Superintendent  
at Cameron Lumber Co.*

*A view of the big Cameron Mill*



## **"Make mine straight"** *said Mr. Beecroft, up in Canada*

**H**E'S the Mill Superintendent at Cameron Lumber Company, Victoria. And he doesn't believe in mixing nor diluting his—well, his oil for the Ross Carriers they use around the mill.

"We tried a lot of different oils

— Eastern, Western, and mixed," said Mr. Beecroft, "and then we found Shell Motor Oil 'D.' We're satisfied now and use nothing else in any of the carriers."

Take a look at the big Cameron Mill. They do a lot of business

here and Shell lubricants help to keep the wheels turning.

You'll find it that way in most mills. Shell oils, greases, and fuels are very apt to be chosen by the practical mill man wherever he is found.

# **SHELL MILL LUBRICANTS**

When writing SHELL Oil Co., please mention PACIFIC PULP AND PAPER INDUSTRY



**Set-up  
Folding  
Corrugated  
Solid Fibre**

## BOARDS and BOXES

A department for interests allied  
with the pulp and paper industry

**Board  
Mills and  
Paper  
Converters**

### United Paper Box Earnings

A preliminary earnings statement issued by the United Paper Box Co. shows that for the ten months, March 1 to December 31, 1929, earnings were \$62,011.91, before depreciation and taxes equal to \$4.43 a share on Class A stock which is listed on the San Francisco Curb Exchange. This is 2.76 times dividend requirements. At this rate, earnings for the fiscal year ending March 1, 1930, would show, before depreciation and taxes, earnings of \$75,000, or around \$5.35 a share, which is 3.34 times dividend requirements, the company states.

Although the company is earning approximately \$75,000 a year, Morris Spiegelman, chairman of the board, has estimated that earnings for 1930 will be close to \$100,000, which would be equal to \$7 a share on the A stock, or around \$3.50 a share on the combined A and B stock.

### Hollywood Box Earnings Lower

Net earnings of Hollywood Paper Box Corp. Los Angeles, for the year ended December 31, 1929, after all charges and taxes, totaled \$42,135, equal after preferred dividends, to \$2.56 a share on \$12,500 shares of \$10 par value common stock outstanding. This compares with net earnings for 1928 of \$46,497, equal after adjustment to present capitalization to \$2.92 a share on the common stock.

### Palmer Lewis Manages Waste Plant

Palmer G. Lewis is the new manager of the Pacific Waste Paper Co., Inc., Seattle, having succeeded J. W. Sweet, who has been transferred to San Francisco to represent the Pacific Straw Paper & Board Co. of Longview, holding corporation for the waste paper corporation.

Mr. Lewis has been in the employ of the Weyerhaeuser Timber Co. as assistant engineer at Rainier, Wash., for a number of months.

Mr. Sweet has been manager of the Pacific Waste Paper Co. for the past year and a half.

### Consolidated Quits Dividend

Directors of Consolidated Paper Box Co., San Francisco, voted to pass payment of the regular 25 cent quarterly dividend on Class B stock, payable January 15 in the interest of preserving the company's cash position. Three quarterly dividends totaling 75 cents were paid during 1929.

No action has been taken on the 37½ cents quarterly dividend for Class A. This dividend is payable February 15 to record of January 31. The dividend is cumulative, however, in the event that its regular requirements are not met before the record date.

Ernest Child, formerly with Blake, Moffitt & Towne, Los Angeles, has joined the forces of the John H. Davis Co., San Francisco, as city salesman handling netting and twine. One of the lines handled by the Davis firm is that of the Fish Net & Twine Co., Jersey City, N. J.

## ANNUAL MEETING

### Pacific Coast Paper Box Manufacturers Association

**VICTORIA, B. C.  
June 23, 24 and 25**

### Convention Plans Progressing

C. E. Daugherty, secretary of the Seattle Paper Box Makers' Association, has been named chairman of a special committee to provide entertainment for the ladies who, with their husbands, will attend the Pacific Coast Paper Box Manufacturers' Association convention to be held at Victoria, B. C., June 23, 24 and 25.

Rufus C. Holman, association vice-president, will also serve on the committee. Other members, whose names were not announced, will include all delegates not addicted to golf, Mr. Holman said.

Mr. Daugherty has also been instructed to select convention headquarters, and it is expected that he will shortly announce the official rendezvous.

Plans for the annual gathering are well advanced, and tentative arrangements are being considered for entertaining the California delegations during their stopover in Portland and in Seattle, provided members from the south do not decide to make the journey by steamer.

### Stettler Is Honored

F. C. Stettler, of the F. C. Stettler Manufacturing Co., Portland, was awarded a gold membership card in the Oregon State Motor Association at a meeting last month. The card was presented by Hal E. Hoss, secretary of state, on behalf of association members. Mr. Stettler has been treasurer of the organization for many years and much of the credit is due to him for the association's growth, it was said.

On February 1 the entire office and sales staff of the Standard Paper Co., Tacoma, took time off for a conference with representatives of the Irving-Pitt Mfg. Co. of Kansas City, to learn the why's and wherefore's of the blank book line of these big manufacturers. The meeting was held in the Tacoma Hotel.

Lloyd Riches of the Western Paper Converting Co., Salem, has moved his San Francisco offices from the Robert Dollar Building to 2902 Russ Building.

# LANGSTON

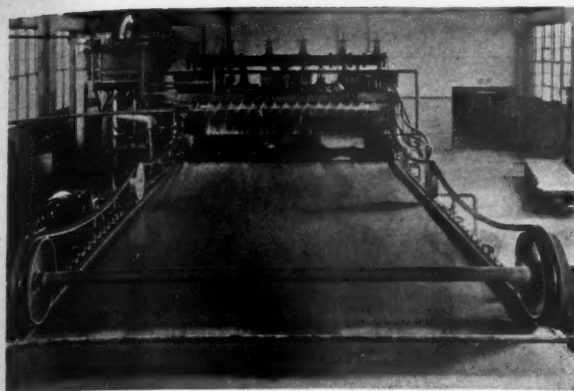
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### U. S. Foreign Trade in Paper Increased in 1929

Both imports and exports of paper and paper products showed substantial gains during the first 11 months of the year just passed compared with the corresponding period in 1928, according to the Paper Division, Department of Commerce.

Imports of standard newsprint, which represents the largest item in incoming shipments, show an increase from 1,740,214 tons (long ton of 2,240 pounds) to 1,955,44 tons accompanied by an increase in value from \$126,320,350 to \$130,888,110. Imports of other classes of paper and board rose from \$15,603,360 to \$17,417,992 during the same period, while paper base stocks increased from \$100,650,116 in value to \$108,363,451.

Exports of paper and paper manufactures from the United States during the first 11 months of 1929 were valued at a total of \$34,233,462, and if the same level is maintained during December as in preceding months the year's shipment will be close to \$37,000,000, the highest figure reached since 1920, when similar exports were valued at somewhat over \$64,000,000.

Among the items showing the heaviest increases were newsprint and book papers, wrapping, surface-coated, and sheathing and building papers, insulating and wall boards. An important item among the exports are over-issue newspapers, which are shown separately for the first time. Shipments of this particular product during the first 11 months of the past year totaled 133,470,074 pounds valued at \$1,473,477.

### B. C. Litigation Dismissed

Litigation in connection with the Whalen Pulp & Paper Mills, now known as the B. C. Pulp & Paper Co., was dismissed in the British Columbia supreme court, the matter in dispute being the sale for about \$4,000,000 of the assets of the old company in October, 1925.

James Whalen, one of the three plaintiffs, died several months ago. The other plaintiffs, George Whalen and Mrs. Verna Dangerfield, New Westminster, sued on behalf of themselves and other debenture holders of the Whalen Pulp & Paper Mills.

The defendants included Montreal Trust Co., Royal Securities Corporation, B. C. Pulp & Paper Co., I. W. Killam and Whalen Pulp & Paper Mills.

Damages were claimed for alleged fraud, it being represented that a delay of the sale would have resulted in a better price being received. The Whalens contended that their holdings were worth between \$10,000,000 and \$15,000,000. Their counsel told the court he had no evidence to proceed with, so the case was dismissed.

### SHIPMENTS OF OVERISSUE NEWSPAPER

From Pacific Coast Customs Districts—November, 1929  
From Los Angeles

Country of Destination—	Pounds	Dollars
China	1,068,840	9,298
Hongkong	3,212,800	30,917
Japan	359,800	2,750
Philippines	942,560	10,332
Orient	247,400	2,311
<b>Total</b>	<b>5,831,400</b>	<b>55,608</b>
From San Francisco		
Central America	53,100	795
Japan	690,600	8,319
Japan	305,760	3,628
China	973,400	8,566
<b>Total</b>	<b>2,022,860</b>	<b>21,308</b>
From Washington		
Japan	88,480	1,017
From Oregon		
Hongkong	140,000	1,360
<b>Total Coast Shipments</b>	<b>8,082,740</b>	<b>79,293</b>



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Loading the Logs on Cars — The Last Operation in the Woods*



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*To Be Manufactured  
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*High Grade* SULPHITE PULP  
FOR DOMESTIC and EXPORT SHIPMENTS



PUGET SOUND PULP & TIMBER CO.  
EVERETT, WASHINGTON

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*When writing to PUGET SOUND PULP & TIMBER CO., please mention PACIFIC PULP AND PAPER INDUSTRY*



### North Pacific District

### North Pacific District

Portland, Ore., January 30, 1930.

L. E. Thorpe, Editor,  
Pacific Pulp & Paper Industry,  
71 Columbia St.,  
Seattle, Washington.

Dear Mr. Thorpe:

We have received the shipment of reprints of "Logging Waste in the Douglas Fir Region" by Hodgson, and we wish to express appreciation for the very nice appearance the reprints make. Both you and Mr. Crosby, and Mr. Smith as well, are to be congratulated upon the very fine publicity you have given this piece of work from the start.

We have prepared a mailing list of some 1400 names to which copies of the reprint will be sent immediately. These include the following groups: Federal, state and consulting foresters, forestry associations and journals, and forest schools within the United States and Canada.

The larger lumbering and logging companies in the Northwest, directors and trustees of lumbermen's and loggers' associations, lumber trade journals and the larger pulp and paper companies in the United States and Canada.

The larger newspapers of western Oregon and Washington and the Literary Digest.

The governors of Oregon and Washington, U. S. senators and representatives from the two states, and the state senators and representatives.

The larger chambers of commerce of western Oregon and Washington, the state grange of both states, the Oregon Farmers' Union and the State Land Commissioners.

The universities of Oregon, Washington, California, Idaho and Montana, the public libraries of western Oregon and Washington, presidents and freight agents of all transcontinental railroads, presidents of the larger banks of western Oregon and Washington and a large list of individuals and prominent men in both states.

We are enclosing a copy of the news release, which summarizes the report, and which was sent to the newspapers of the Northwest. You will note that credit for publishing the report was given to the Pacific Pulp and Paper Industry and the West Coast Lumberman.

Very sincerely yours,

W. H. GIBBONS,  
In Charge of Office of Forest Products.

## Committee on

**Immigration and Naturalization**

Washington, D. C.

January 29, 1930.

Mr. L. E. Thorpe, Editor,  
Pacific Pulp & Paper Industry,  
71 Columbia Street,  
Seattle, Washington.

Dear Mr. Thorpe:

I have your letter of January 24 in re increased appropriation for the investigation and study of Western woods. Since the passage some days ago of the Agricultural Bill, I have obtained from the Forest Service a rather comprehensive report covering the matter which I have handed to Senator Jones for consideration when his committee takes up that bill. I shall follow the matter and, if need be, will appear in person in support of an increase in that item.

With best wishes, I am

Your cordially,  
Yours cordially,

FOREST SERVICE  
Washington

## REST SERV. Washington

January 30, 1930.

Mr. L. E. Thorpe,  
Pacific Pulp & Paper Industry,  
71 Columbia Street,  
Seattle, Wash.

Dear Mr. Thorpe:

I have just received a copy of the complete reprint of "Logging Waste in the Douglas Fir Region". I think this makes an exceedingly attractive looking document. I am highly pleased with the outcome of the arrangement with you and Mr. Crosby for the publication of the Hodgson report.

You will be interested to know that in connection with the proposed appropriation of \$30,000 for a study of the pulping possibilities of western woods very valuable use was made of the figures in this report, and particularly of some of the charts which were prepared under your direction.

Very sincerely yours,

C. M. GRANGER,  
Director, Forest Survey.

### Grays Harbor Pulp-Paper Shipments

Water-borne shipments of pulp and paper from Grays Harbor during 1929 totaled approximately 18,000 tons of pulp and more than 3,000 tons of paper, according to figures released by the Port of Grays Harbor.

### PACIFIC COAST PAPER IMPORTS—NOVEMBER, 1929

[illegible]

**Total Imports of All Paper and Paper Products, November, 1929; \$1,205,399.**



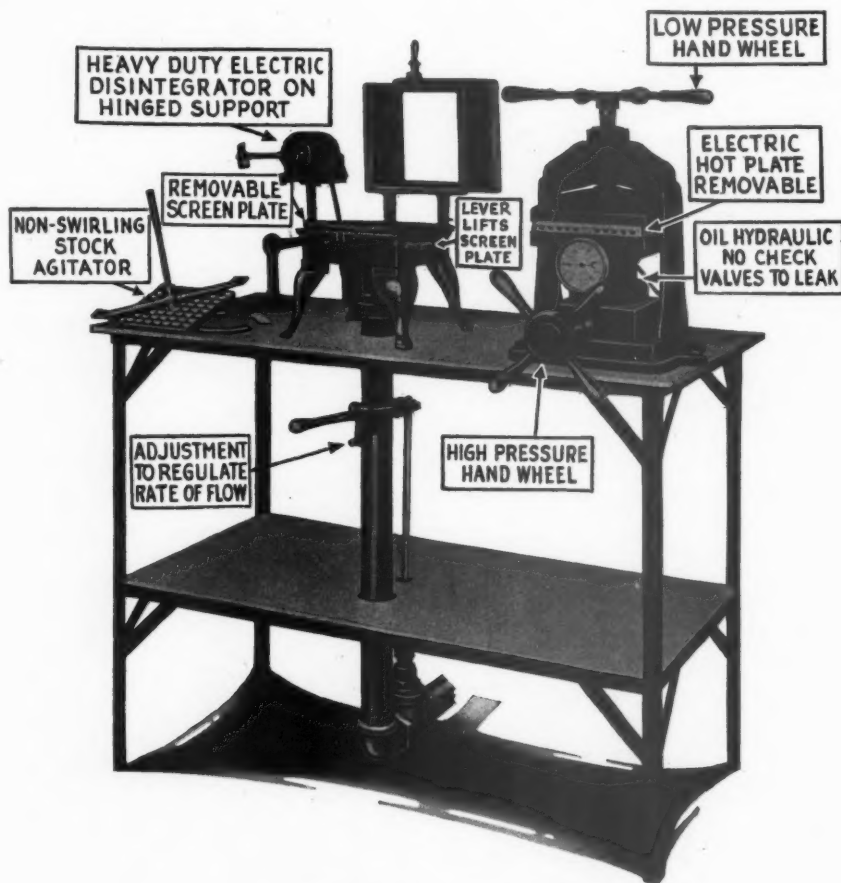
## Announcing the New Williams Sheet Making Outfit



The finest Sheet Mould ever built—will make a handsome sheet of as good formation as can be made on the big machine.

These may sound like extravagant statements but we stand ready to back them up.

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### EXCLUSIVE FEATURES

Box and deckle solid bronze with hinges cast on, accurately machined, all heavily nickel plated. Makes 8" x 8" sheet. Note other features above.

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WATERTOWN, N. Y.



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### The Pulp and Paper Market in Scandinavia

**IN SWEDEN**—A certain improvement in the paper market during the month of November as compared with the preceding months was noted in the Svensk Pappermasse-Tidning, for December 15, 1929. This improvement may probably be attributed not only to a desire on the part of the buyers to cover their requirements of paper for some considerable time ahead, in the event of the negotiations for a new working agreement now pending in the Swedish paper trade leading to a cessation of work; but also to many buyers having kept out of the market for such a long time that they are now forced to complete their stocks.

Contracts for something like 30,000 tons of Kraft pulp have been concluded with the U. S. A. for 1930 at from \$2.40 to \$2.45 a ton and in some instances as much as \$2.52½. Such activity was quite a surprise and, as is quite natural, the development of the market for Kraft pulp is being watched with keen interest. The turnover on sulphite and mechanical pulp has been light.

**IN FINLAND**—As the North American newsprint mills have not yet fixed their quotations for next year, new orders have not yet been booked. No changes worth mentioning have occurred in other paper markets. Though the pulp market is very quiet, export figures show a decided increase in the eleven months from January to November, 1930, over the previous year.—Finnish Paper and Timber Journal, December 15, 1929.

**IN NORWAY**—The market has fallen off somewhat, and prices for all grades of chemical pulp seem to be somewhat weaker for all grades of chemical pulp, although considerably higher than at the beginning of the year as far as Strong and Easybleaching Sulphite are concerned. The market remains quiet and unaltered in mechanical pulp.—Papir-Journalen, December 11, 1929.

### Russian Pulpwood Shipments

Sales of pulpwood by the U. S. S. R. up to August 1 reached a total of 127,975,000 cubic feet. Largest purchaser, Germany, 66,237,000 cubic feet. Other important purchasers: Netherlands, United Kingdom; Finland; Japan and France. A recent report states that Russian pulpwood is being delivered at Tilsit (near Königsberg) at a price of 16 shillings per cubic meter (cubic meter equals 35.31 cubic feet) f. o. b.

### Pulp Market Re-opens in Mexico

British Columbia pulp manufacturers have been advised that the door is again about to be opened for the exportation of pulp to Mexico owing to price conditions and other changes in the Mexican market.

The tariff regulations and rates have undergone some modification which will tend to encourage Canadian manufacturers to begin again, after three years of restriction, to offer their product to the Mexicans, according to C. Noel Wilde, Canadian trade commissioner in Mexico City.

The consular fee of 10% and a surcharge of 10% on duties which have hitherto been paid at port of entry has been lifted. Rates of duty have, however, been readjusted in a manner to make the actual duty cost of getting into the Mexican market practically unchanged as to gross amount.

### New Construction in Scandinavian Paper Industry

There is much new construction activity in the Scandinavian paper producing countries at present, especially in Sweden, which will add considerably to their productive capacity, according to a report from Commercial Attache Marquard H. Lund, Oslo, to the Department of Commerce.

Projects recently completed, now under construction, or contemplated will add to Swedish production as follows:

Groundwood 30,000 metric tons  
Bleached sulphite 25,000 tons  
Unbleached sulphite 7,500 tons  
Sulphate 219,000 tons  
Kraft paper 40,000 tons  
Other classes of paper 7,000 tons.

In Finland the Veitsiluoto Mills and the Waldhof Co. expect to commence operations in the spring of 1930, which will add 30,000 tons respectively to the Finnish output of bleached sulphite and unbleached sulphite. A third plant, situated at Warkaus will also increase its output on sulphite pulp by 12,000 tons a year, and the Serlachius paper company its paper production by 8,000 tons.

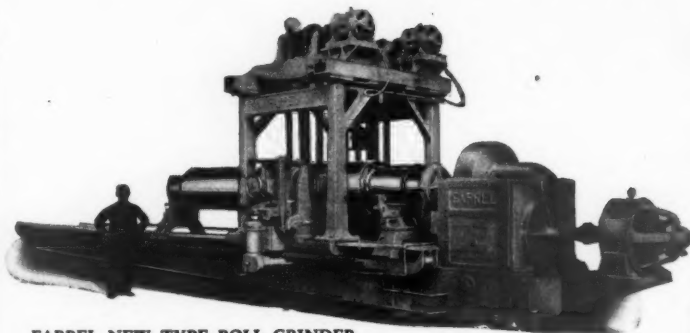
A Norwegian concern is also planning an increase in its paper output of 8,000 tons.

Imports of printing papers into New Zealand during the month of October, 1929, reached a total of 2,090 long tons, of which Canada supplied 1,129 tons.

### PACIFIC COAST PULP IMPORTS—NOVEMBER, 1929

	Paper* Base Stocks Dollars	Pulpwood Dollars	Cords	Mechanically Ground Pulp Dollars	Tons	Bleached Sulphite Dollars	Tons	Unbleached Sulphite Dollars	Tons	Unbleached Sulphate Dollars	Tons	Bleached Sulphate Dollars	Tons
<b>To LOS ANGELES—</b>													
From Sweden										20,491	500		
From Japan	12,520												
From China	197												
From France	11,980												
From Belgium	8,034												
From Algeria	41												
<b>To SAN FRANCISCO—</b>													
From Canada								13,606	362	4,352	144	12,228	200
From Sweden													
From Germany	2,211												
From Japan	80,672												
From United Kingdom	541												
<b>To OREGON—</b>													
From Canada						8,557	135	1,864	41				
From Japan	4,576												
<b>To WASHINGTON—</b>													
From Canada	3,610	5,339	952					4,891	95				
From Japan	912												
From Sweden										9,025	252		
<b>Pacific Coast Totals</b>	<b>125,294</b>	<b>5,339</b>	<b>952</b>			<b>8,557</b>	<b>135</b>	<b>20,361</b>	<b>498</b>	<b>33,868</b>	<b>896</b>	<b>12,228</b>	<b>200</b>

Total Imports of Pulpwood, Pulp and Base Stock, November, 1929, \$205,647.

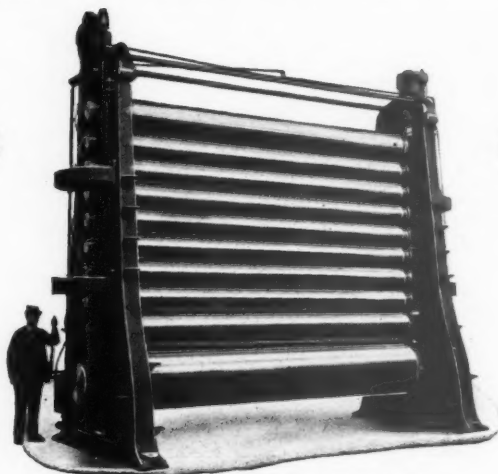


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**FARREL NEW TYPE ROLL GRINDER** is made in 24", 32", 36" and 42" sizes, all electrically driven throughout and fitted with Geared Head, Automatic Lubricating System and combination Swing Rest and Crowning Device, which provides for greater accuracy and faster grinding with a minimum expenditure of time and labor.

## FARREL CALENDERS

are made with  
HYDRAULIC  
ELECTRIC  
OR  
RATCHET  
LIFT  
all operated  
from the floor.



178" STACK WITH HYDRAULIC LIFT

## FARREL CALENDER ROLLS

are made in  
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**298"**  
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The **FARREL** Indicating Roll Caliper is a precision instrument of very light weight, with which rolls can be calipered to the end of the face without reversing the instrument. Only two adjustments are necessary in changing from one diameter roll to another. Moves freely along the face of the roll and shows the slightest variation in the diameter at any point.

*FARREL Products for the paper mill are favorably known all over the world. There are more FARREL rolls in use in this country than all other makes combined.*



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**FARREL-BIRMINGHAM COMPANY INC.**  
ANSONIA, CONN.

Successors to: Farrel Foundry & Machine Co., Ansonia, Conn., Est. 1848.

Birmingham Iron Foundry, Derby, Conn., Est. 1836.

*When writing FARREL-BIRMINGHAM Co., Inc., please mention PACIFIC PULP & PAPER INDUSTRY*



At the present writing the prospects seem to be less favorable for the materialization of the Umpqua Pulp & Paper Co., which proposed to build a 100-ton pulp mill on the Oregon Coast.

W. L. Nederhoed, who first organized the project, has severed his connections with the company and his whereabouts are unknown. Joe Kaster, old time and well known Pacific Coast papermaker, elected Umpqua's president not long ago, has taken smaller quarters at 1001 Bedell Building, Portland, and is reticent to discuss the project.

Collapse of one of the penstocks between dam and power house at the Ocean Falls, B. C., mill of Pacific Mills, Ltd., last month has caused a serious shortage of power there, resulting in a partial shutting down of production.

New steel was ordered immediately on an urgent rush order, but it is believed that full production can not be resumed for possibly a month or more after the accident.

Cause of the collapse was not stated altho it is understood that it may have been due to ice forming in, and sealing, the surge tanks, thus creating a vacuum within the penstock when the head gates were closed.

**The stopping place in Portland  
for Pulp and Paper Men.**



**Sixth at Main  
Street  
PORTLAND  
OREGON**

**200 Rooms—200 Baths**  
Convenient Downtown  
Location.  
Reasonable Rates Prevail.

**LOUIS E. BOGEL, Resident Manager**

Crown Willamette Paper Company's mill at Lebanon, Ore., is to have a third paper machine. No. 3 machine, being retired at the company's Camas, Wash., mill in the course of a big improvement program, will find a new home at Lebanon. Removal of the machine is already in progress.

Production in Canada during December, 1929, amounted to 230,008 tons and shipments to 234,100 tons. Production in the United States was 112,583 tons and shipments 117,131 tons, making a total United States and Canadian newsprint production of 342,591 tons and shipments of 351,231 tons. During December, 21,123 tons of newsprint were made in Newfoundland and 1,277 tons in Mexico, so that the total North American production for the month amounted to 364,991 tons.

Adding to the production of the regular newsprint mills reporting monthly throughout the year, the small amount made by mills whose product is chiefly other grades, the total North American output of newsprint paper in 1929 was 4,395,283 tons, of which 2,728,827 tons was made in Canada, 1,392,276 tons in the United States, 255,500 tons in Newfoundland and 18,680 tons in Mexico. The Canadian output was 14.6 per cent more than in 1928, that in the United States 1.8 per cent less, with a gain of 10.7 per cent in Newfoundland and 10 per cent in Mexico, making a total continental increase of 348,883 tons, or 8.6 per cent.

During December the Canadian mills operated at 85.6 per cent of rated capacity, the United States mills at 79.9 and Newfoundland mills at 107.2 per cent. Stocks of newsprint paper at Canadian mills totalled 24,946 tons at the end of December and at United States mills 19,023 tons, making a combined total of 43,868 tons which was equivalent to 2.7 days' average production.

	Canada	United States	Newfoundland	Mexico	Total
1929—December	230,008	112,573	21,123	1,277	364,991
Twelve Months	2,728,827	1,392,276	255,500	16,860	4,395,283
1928—Twelve Months	2,381,102	1,417,572	230,745	16,981	4,046,400
1927—Twelve Months	2,086,949	1,485,495	202,852	14,137	3,789,433
1926—Twelve Months	1,881,737	1,684,218	186,471	13,412	3,765,838
1925—Twelve Months	1,522,217	1,530,318	96,588	12,681	3,161,804
1924—Twelve Months	1,352,994	1,481,425	64,648	11,900	2,910,567
1923—Twelve Months	1,266,232	1,485,000	63,906	12,000	2,827,138

	Paper <sup>a</sup> Base Stocks Dollars	Pulpwood Dollars	Cords	Mechanically Ground Pulp Dollars	Tons	Bleached Sulphite Dollars	Tons	Unbleached Sulphite Dollars	Tons	Unbleached Sulphate Dollars	Tons	Bleached Sulphate Dollars	Tons
<b>To LOS ANGELES—</b>													
From Belgium	6,914												
From France	2,479												
From Japan	9,534												
From Finland				11,627	544								
From Sweden						988	13	11,578	214				
<b>To SAN FRANCISCO—</b>													
From Austria	1,030												
From United Kingdom	4,956												
From Canada	5,753					5,700	56	13,859	362	8,074	221	2,484	46
From China	1,976												
From Japan	187,886												
From Australia	212												
From New Zealand	3,164												
From Finland								11,078	519				
From Sweden								60,225	1,300				
<b>To WASHINGTON—</b>													
From Canada	4,296	8,625	1,401										
From Japan	1,189												
From Belgium						8,901	136						
<b>Pacific Coast Total</b>	<b>229,389</b>	<b>8,625</b>	<b>1,401</b>	<b>11,627</b>	<b>544</b>	<b>15,589</b>	<b>205</b>	<b>96,740</b>	<b>2,395</b>	<b>8,074</b>	<b>221</b>	<b>2,484</b>	<b>46</b>

# PULP

**PERKINS-GOODWIN CO.**  
Established 1846  
**551 FIFTH AVENUE, NEW YORK**  
TEL. VANDERBILT 2800

# PAPER

When writing to PERKINS GOODWIN Co. please mention PACIFIC PULP & PAPER INDUSTRY

## U. S. Pulp and Paper Production, November, 1929

According to identical mill reports to the American Paper and Pulp Association from members and co-operating organizations, paper production in November registered a decrease of 9% as compared with October, 1929, and an increase of 1% over November, 1928. Paper production for eleven months ending November, 1929, showed an increase of 6% over the same period in 1928.

The November production for all the individual grades, excepting newsprint, felts and building, bag and wrapping papers, registered an increase over November, 1928, output. Uncoated book paper production showed an increase of 17% over November, 1928, writing 7%, hanging 10%, tissue 5% and paperboard 2%. Production of wrapping paper decreased in November, 1929, as compared with November, 1928, by 12%, bag paper 17%, felts and building paper, 7% and newsprint 8%.

Shipments of all grades in November, 1929, excepting newsprint, felts and building, bag and wrapping papers, increased over November, 1928, the total shipments being 1% above the total of last year.

Newsprint and hanging papers registered decreases in inventory at the end of November, 1929, as compared with October, 1929. As compared with November, 1928, newsprint, wrapping, bag, writing and tissue papers showed increases in inventory. The total stocks on hand for all grades was 2% above October, 1929, and 4% below that of November, 1928.

Identical pulp mill reports for November, 1929, indicated that the total production of all grades of pulp was 6% less than November, 1928.

During November, 1929, 10% more Mitscherlich sulphite and 3% more soda pulp was consumed by reporting mills than in November, 1928. The total shipments to outside markets of all grades of pulp in November, 1929, were substantially greater than the total for November, 1928.

All grades of pulp, excepting groundwood, Mitscherlich sulphite and soda, showed increases in inventory at the end of November as compared with the end of October, 1929. As compared with November, 1928, all grades excepting bleached sulphite, easy bleaching sulphite, and kraft pulp, registered decreases in inventory.

## REPORT OF PAPER OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF OCTOBER, 1929

GRADE	Production Tons	Shipments Tons	Stocks on Hand End of Month— Tons
Newsprint	113,729	116,725	23,549
Book (Uncoated)	94,248	91,235	43,857
Paperboard	213,335	211,315	55,978
Wrapping	49,132	49,151	47,001
Bag	13,361	12,838	5,376
Writing	30,997	29,462	40,599
Tissue	12,840	12,609	7,731
Felts and Building	6,427	7,256	3,807
Other Grades	5,075	4,720	3,117
Total—All Grades	26,772	26,188	17,144
Total—All Grades	565,916	561,499	248,359

## REPORT OF WOOD PULP OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF OCTOBER, 1929

GRADE	Production Tons	Used During Month—Tons	Shipped During month—Tons	Stocks on Hand End of Month— Tons
Groundwood	79,408	87,198	3,958	45,947
Sulphite News Grade	38,477	31,403	6,987	6,509
Sulphite Bleached	26,148	22,365	3,472	3,379
Sulphite Easy Bleaching	3,660	2,995	377	1,064
Sulphite Mitscherlich	7,096	6,377	759	916
Sulphate Pulp	29,142	20,974	7,361	6,396
Soda Pulp	24,046	15,618	8,755	3,601
Pulp—Other Grades	22	—	98	54
Total—All Grades	207,999	186,930	31,767	67,866

## IMPORTS OF PULP WOOD AND WOOD PULP INTO THE UNITED STATES BY COUNTRIES

NOVEMBER, 1929

Compiled by the U. S. Department of Commerce Bureau of Foreign and Domestic Commerce  
(Figures Subject to Revision.)

COUNTRIES	PULP WOOD				PULP WOOD				PULP WOOD			
	Rough		Other		Peeled		Other		Rough		Other	
	Cords	Dollars	Cords	Dollars	Cords	Dollars	Cords	Dollars	Cords	Dollars	Cords	Dollars
Canada	4,509	50,780	119	814	32,330	376,966	3,725	33,206	1,959	22,549	—	—
Newfoundland and Labrador	—	—	—	—	1,668	20,016	—	—	—	—	—	—
Total	4,509	50,780	119	814	33,998	396,982	3,725	33,206	1,959	22,549	—	—

Total Pulpwood Imports for November, 1929—44,310 Cords; \$504,331.

## WOOD PULP

COUNTRIES—	Mechanically Ground		Chemical Unbleached Sulphite		Chemical Bleached Sulphite		Chemical Unbleached Sulphate		Chemical Bleached Sulphate		All Other Wood Pulp	
	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars
Austria	—	—	—	—	255	17,787	—	—	—	—	—	—
Czechoslovakia	—	—	245	11,734	146	10,357	—	—	—	—	—	—
Estonia	—	—	596	29,547	—	—	—	—	—	—	—	—
Finland	491	13,125	14,356	615,788	—	—	2,045	98,571	50	3,557	—	—
France	—	—	—	—	—	—	—	—	—	—	59	16,993
Germany	—	—	764	41,748	3,688	275,494	—	—	—	—	136	10,283
Lithuania	—	—	470	25,447	—	—	—	—	—	—	—	—
Norway	350	5,006	1,738	90,015	1,995	127,565	225	11,095	50	4,023	—	—
Poland and Danzig	—	—	175	7,995	—	—	201	8,788	—	—	—	—
Sweden	405	10,558	37,790	2,000,832	2,287	172,323	17,955	890,364	1,378	71,889	—	—
Yugoslavia & Albania	—	—	976	40,856	—	—	—	—	—	—	—	—
Canada	17,703	495,419	14,437	698,517	16,262	1,244,679	9,510	575,125	548	51,375	393	28,234
Total	18,949	524,108	71,547	3,562,479	24,633	1,848,205	29,936	1,583,943	2,026	130,844	588	55,510

Total Imports of All Grades of Pulp for November, 1929—651,920 Tons; \$7,705,089.



A battery of four LEAHY chip screens in one of the plants of the  
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INTERNATIONAL WOOD & SULPHITE  
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SCREENS. His selection of LEAHYS for all  
plants is the best evidence of their satisfactory  
screening ability.

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SEATTLE, WASHINGTON

*Manufacturers and Engineers of Conveying, Screening, Elevating and Transmission Machinery*

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## PACIFIC COAST PAPER EXPORTS—NOVEMBER, 1929

	Newsprint		Printing		Writing		Greaseproof		Wrapping		Tissues	
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars
From LOS ANGELES—												
To Mexico					438	136	323	45	1,385	172	1,306	197
To Australia									74,802	5,260		
To Philippines					580	364						
From SAN FRANCISCO—												
To Central America	82,031	2,462	26,168	1,388	24,985	1,376	975	192	77,598	4,496	1,308	191
To Australia			45	24							2,619	249
To Mexico	9,466	293	60	14	4,627	301			140	21		
To Colombia	14,200	497							21,441	1,316		
To Philippines	44,825	1,541	1,680	203	400	150			500	40	3,330	336
To Oceania	2,700	83							2,110	152	1,237	103
To Panama			82,096	5,562	24,758	1,244	59	21				
To Canada			77	24	140	50						
To China					1,563	703	200	210			30	14
To Orient									553	75	3,166	623
To Chile									2,310	122		
To Venezuela					34,124	2,022						
To Japan											356	160
To British East Africa											175	20
From OREGON—												
To China	64,395	2,145			27,548	1,360						
To Philippines	201,080	6,168	20,782	1,833	148,039	6,758			109,660	5,658		
To Australia			7,747	448	57,377	2,857						
To Mexico									2,486	169		
To Chile									2,410	163		
To Brazil					78,169	3,992						
To Japan					6,868	330						
From WASHINGTON—												
To Philippines	100,336	2,865	31,419	1,759					42,851	1,703	25,445	2,059
To Canada			63,669	4,676			227	130	2,701	324		
To China			625,459	40,295	325	145			200	40	140	20
To Australia			36,008	2,032	13,779	751						
To Japan					455	103			1,355	227		
To Orient											22,070	1,819
To Venezuela					75	54						
Pacific Coast Total	519,033	16,054	895,210	58,258	482,508	22,696	24,480	25,078	342,502	362,440	423,642	5,791

	Board		Building		Boxes & Cartons		Paper Bags		Converted Paper Products		Miscellaneous Paper & Prod.	
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars
From LOS ANGELES—												
To Canada	2,000	79							480	236		164
To Mexico			54,947	2,170	2,000	90	900	55				1,390
To Australia			54,315	1,847								
To Panama												155
To Peru												15
To Philippines												204
From SAN FRANCISCO—												
To United Kingdom												477
To China	10,000	222										
To Orient	17,378	4,804	31,020	1,387			1,497	148	26	26		253
To Philippines	4,322	195	128,912	5,229			500	100	1,122	610		392
To Australia	328,909	9,849	102,990	4,691	13,551	914			925	389	13,368	
To Canada	3,784	1,352			340	21			214	72		1,738
To Central America	2,660	484			30	35	5,578	387	1,662	552		113
To Oceania	165	32					2,017	160				111
To Mexico	243	47			18,419	1,757			47	13		1,377
To Panama			1,600	43					266	88		
To Argentina			34,000	1,216								
To China			35,570	1,081					1,715	682		311
To Chile												242
To Japan			68,100	2,898	1,718	500			384	154		527
To South Africa			1,215	39	6,100	190						
To Colombia					65,672	3,107	25,988	2,437				
To Venezuela									86	70		6
From OREGON—												
To Australia	4,750	112										
To Chile							1,992	114				
To Colombia							6,541	480				
To Central America							6,491	372				
To Peru							27,235	1,387				
To Philippines							148,951	8,871	1,916	112		
From WASHINGTON—												
To United Kingdom	55,000	1,691										
To Australia	42,433	1,680										
To Philippines					125	60			660	120		
To China									12	2		925
To Japan									35,833	2,679		912
To Canada												2,376
To Hong Kong												200
Pacific Coast Total	471,644	20,547	512,669	20,601	128,456	6,674	227,690	14,511	45,348	6,025	25,256	

Total All Paper Exports for Month of October, 1929..... 3,336 tons—\$ 353,099.

Total All Paper Exports for Month of November, 1929..... 2,036 tons—\$ 583,931.

Total All Paper Exports for Eleven Months, 1929..... 32,176 tons—\$ 3,797,698.

Washington shipped the following wood pulp during the month of November, 1929: To Belgium, 65 tons, \$2,600; to Italy, 110 tons, \$4,480; to United Kingdom, 736 tons, \$29,440; to Canada, 141 tons, \$1,061.

CLASSIFICATIONS—For convenience of presentation, some classifications have been combined, as follows: "printing," includes book (not coated), cover and surface coated paper; "greaseproof" includes water-proof; "tissues" includes crepe, tissue, paper towels, napkins and toilet; "board" includes boxboard, bristol, bristolboard and other paper board and strawboard; "building" includes sheathing, and other building paper; "writing" includes fancy papereries and other writing; "converted paper products" includes envelopes, cash register rolls, index file and other office

forms; "miscellaneous" includes blotters, paper hangings, vulcanized fibre sheets, strips, rods and tubes, manufactures of vulcanized fibre and other paper products. COUNTRIES—Under the classification "Central America" are included all of the Central American countries and Cuba. "South America" includes only the following South American countries: Ecuador, Paraguay, Bolivia, Uruguay, and the Guianas; other South American countries are classified separately. "Orient" includes all the Asiatic countries with the exception of China and Japan, which are separately classified. New Zealand is included under "Australia."

### Canadian Exports of Pulp and Paper December, 1929

Canadian exports of pulp and paper in December, according to the report issued by the Canadian Pulp and Paper Association, were valued at \$16,820,880, which was a decrease of \$1,131,128 from the previous month's total.

Wood pulp exports for the month were valued at \$3,382,926 and exports of paper at \$13,437,954 as compared with \$4,152,432 and \$13,799,576 respectively in November.

Exports of the various grades of pulp and paper were as follows:

	December, 1929		December, 1928	
PULP—	Tons	Dollars	Tons	Dollars
Mechanical	14,382	437,519	19,980	535,643
Sulphite Bleached	18,469	1,393,578	21,860	1,671,296
Sulphite Unbleached	21,241	1,016,457	19,718	990,720
Sulphate	8,433	485,174	14,356	850,674
Screenings	3,321	50,198	3,525	54,343
	65,846	3,382,926	79,439	4,102,676
PAPER—	Tons	Dollars	Tons	Dollars
Newsprint	220,171	12,994,162	213,162	13,408,647
Wrapping	1,111	122,712	1,473	154,041
Book (cwts.)	5,087	45,539	6,435	49,568
Writing (cwts.)			668	6,843
All Other		275,541		292,852
		13,437,954		13,911,951

For the year 1929 the total value of pulp and paper exported from Canada amounted to \$198,287,106 as compared with \$192,771,615 in 1928, an increase for the year of \$5,515,491.

Exports of wood-pulp for the year were valued at \$43,577,021, which was a decline of \$2,037,802 from the total for the year 1928. Exports of paper in 1929 were valued at \$154,710,085 as compared with \$147,156,792 in 1928, an increase for last year of \$7,553,293.

Details of exports for the years 1929 and 1928 are as follows:

PULP:	Tons	Dollars	Tons	Dollars
	Year 1929	Year 1928	Year 1929	Year 1928
Mechanical	209,331	5,906,638	203,670	5,546,120
Sulphite Bleached	253,810	19,246,692	251,543	19,112,964
Sulphite Unbleached	201,839	9,923,016	214,127	10,738,977
Sulphate	134,321	7,856,486	162,772	9,595,866
Screenings	36,408	644,189	31,694	620,896
	835,709	43,577,021	863,806	45,614,823
PAPER:	Tons	Dollars	Tons	Dollars
	Year 1929	Year 1928	Year 1929	Year 1928
Newsprint	2,510,633	148,656,611	2,206,587	141,103,527
Wrapping	14,903	1,628,261	16,062	1,755,652
Book (cwts.)	74,052	632,660	71,802	588,671
Writing (cwts.)	4,170	38,968	4,702	44,629
All Other		3,753,585		3,664,313
		154,710,085		147,156,792

Exports of pulpwood in 1929 were smaller than for some years past, the total quantity shipped being 1,294,995 cords valued at \$13,314,738 as compared with 1928 exports of 1,532,266 cords valued at \$16,269,660.

### Koffoed New Superintendent at Columbia

The position of sulphite superintendent at the Columbia River Paper Mills, Vancouver, Wash., has been filled by C. A. Koffoed. Mr. Koffoed has been with the Oregon Pulp & Paper Co., Salem, Oregon, which is an affiliated Leadbetter mill, since that mill went into operation in 1920.

Mr. Koffoed's experience in sulphite dates back for many years, to the time when he first began in the mill of the Crown Willamette Paper Co., at Floriston, Calif. Following his service at Floriston he was for a time at the West Linn, Oregon, mill of the same company and then for two years with the Nekoosa-Edwards Paper Co. in Wisconsin, from whence he went to Salem.

Earl E. Brown, who was with the Standard Paper Co. of Tacoma for about nine years is now with the Zellerbach Paper Co. branch in Seattle following a six months' vacation.



## IS YOUR BARKING CAPACITY GUARANTEED?

The U-Bar Barking Drum is guaranteed for two years at a minimum speed of 7½ R.P.M. (10 ft. diam.) running half-full of wood at an average of 3,000 working hours per year. This is all in addition to the usual guarantee of workmanship and materials.

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This guarantee insures BIG and sustained production. Three factors govern capacity: Interior Surface, Volume and Speed. Examine the U-BAR Drum from these angles:

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2. *Volume:* You can keep a U-BAR Drum HALF-FULL of slabs or logs all the time—a 10'x30' U-BAR Drum, for instance, carries a working load of five cords of wood. Think of it!

3. *Speed:* 7½ R.P.M. are guaranteed in the U-BAR Drum and many mills increase their capacity greatly by stepping this up to 10 R.P.M. Speed is important.

*When you consider barking drums, insist on a capacity guarantee.*

### THE MORTERUD SYSTEM

Production records of the Union Bag and Paper Mills attest to the efficiency of the Morterud System of Indirect Soda and Sulphate cooking. It produces an even cook and a greater yield with forced circulation of preheated liquor. Steam is not introduced directly into the digester but circulates through a series of seamless steel pipes and the condensed water is pumped back to the boilers. Therefore there is no dilution in digester and less steam is used in the evaporation of liquor.

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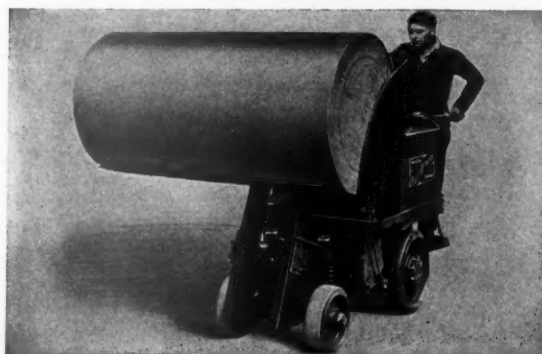
## PACIFIC COAST PAPER IMPORTS—OCTOBER, 1929

	Newsprint		Printing Papers		Writing & Drawing		Greaseproof		Wrapping		All Other Paper
	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars
<b>To LOS ANGELES—</b>											
From Finland	232	7,880									
From Sweden	115,465	4,582,181							2,643	67,114	
From Canada	636	956			41	38					16
From Germany					1,087	2,105			636	956	3,682
From Austria					1,050	1,805					947
From Belgium					56	264					85
From France					3,245	4,297					2,598
From Japan					62	168					1,643
From Hong Kong											14
From China											28
From United Kingdom											1,750
From Other Europe											723
<b>To SAN FRANCISCO—</b>											
From Sweden	87,983	3,381,915	3,881	95,986							
From China					34	109			6	31	453
From Hong Kong					100	254			17	200	629
From Finland	1,290	44,904									
From Canada	324,058	10,839,232									71
From Austria					189	449					415
From Belgium					63	643					1,134
From France					2,196	3,967					24,168
From United Kingdom					256	228					1,815
From Japan					151	641					11,572
From Germany											4,349
From Czechoslovakia											54
From Italy											86
From All Others											14,928
<b>To OREGON—</b>											
From Austria					75	246					112
From France											9
From Germany											126
From United Kingdom											577
From Japan											43
<b>To WASHINGTON—</b>											
From Canada	421,828	12,870,416			139	215					1,859
From Austria					19	29					26
From France					173	274					497
From Germany					15	50			184	157	43
From United Kingdom					8	20					783
From China											36
From Japan					154	210					4,444
From Sweden											587
<b>Pacific Coast Total</b>	<b>951,492</b>	<b>31,727,484</b>	<b>3,881</b>	<b>95,986</b>	<b>9,113</b>	<b>16,012</b>			<b>3,486</b>	<b>68,458</b>	<b>80,302</b>

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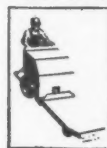
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